$2.00 a Year in Advance.

VOL. XVI. No. 183. Old Series. | MARCH, 1883 | VOL. XII. No. 3. New Series.

ROYAL MICROSCOPICAL SOCIETY

THE CINCINNATI MEDICAL NEWS.

EDITED BY

J. A. THACKER, A. M., M. D., F. R. M. S., LOND.

Fellow of American Academy of Medicine, *Etc.*

CONTENTS.

The Etiology of Consumption 145
Translations from Our Foreign Exchanges 156
A Case in which an Attack of Acute Inflammatory Glaucoma was Immediately Followed by Inflammation of the Brain 160
A Clinical Lecture on Gastro-Duodenal Catarrh in Young Children, in Harvard Medical College 166
Cerebral Localization and the Psychical Functions 171
Treatment of Aggravated Hysteria and Certain Allied Forms of Neurosthenic Disease 174
Antidiphtheritic Inhalations 176
New York Pathological Society 177
Comparative Value of the Alkaline Bromides 179
The Pathology of the Blood in Inflammation 181
Old Lights Newly Snuffed 185
Binocular Vision in the Study of the Diatomaceæ 188
Gleanings 190
Book Notices 203
Editorial 205

CINCINNATI, OHIO:

Published by Dr. J. A. Thacker.

121 West Seventh Street.

Entered at the Post-Office, Cincinnati, O., as Second-Class Matter.

ELM STREET PRINTING COMPANY, 176 & 178 ELM STREET.

Read the Advertisements.

NEW REMEDIES.

EXPECTORANTS

PARKE, DAVIS & CO.,

Manufacturing Chemists,

DETROIT, MICH.

Respectfully solicit the attention of practitioners of medicine to their preparations of the following drugs, premising their statement of the claims made for them by mention of the fact that such claims are, in each instance, the legitimate deductions from reports in their possession (and copies of which will be gladly furnished gratis on application) of results following the use of the drugs in the practice of competent and conscientious physicians:

YERBA SANTA.

(Eriodyction Californicum.)

Although this indigenous plant has been before the profession for several years, it is to be feared that it is not as fully appreciated as its inherent merits demand. The cause of this is the fact that it has not been accorded the thorough trial to which an agent possessing the properties claimed for it, is entitled. It is a demulcent of superior quality, and while exercising a favorable influence over mucous membranes wherever situated, has a peculiar influence over that of the respiratory passages. The testimony in support of this statement is too voluminous for introduction at this place, but will be cheerfully furnished on application to us.

We prepare a fluid and a solid extract.

DOSE—FLUID EXTRACT YERBA SANTA (P., D & CO.), 3 ss to 3 j.
SOLID EXTRACT YERBA SANTA (P., D. & CO.), gr. iij to gr. x.

QUEBRACHO.

(Aspidosperma Quebracho.)

Although of comparatively recent introduction Quebracho came to us so endorsed by the results of physiological and clinical experience as to place it at once in a place among the more reliable drugs. These experiments have been copious and convincing, fixing quebracho as an agent possessing a peculiar property in relieving dyspnœa due to whatever cause, the cyanotic hue of lips and surface disappearing under its use and the distress of the patient being distinctly ameliorated.

Quebracho supplies, in its marked properties, a pressing want, especially in the treatment of pneumonia or other affections of the lungs attended by dyspnœa. In such self-limited affections the desideratum is to sustain the patient until the disease shall have run its course, and many have succumbed because of the want of an agent which should do what quebracho is claimed to do. That it is a remedy of indispensable value in acute pulmonary inflammations is attested by abundance of testimony in our possession, and which will be supplied gratuitously, collated from both private and hospital practice.

DOSE—FLUID EXTRACT OF QUEBRACHO (P., D. & CO.), 20 MINIMS TO A FLUIDRACHM.

LIPPIA MEXICANA.

An agreeable anodyne and demulcent expectorant, introduced by us to the profession of this country on the authority of Dr. A. H. Saxton, of Baltimore, Md. Dr. Saxton received a sample of the plant for trial from a gentleman (a chemist by profession), who, while traveling in Mexico in 1877, had observed its characteristic properties from its use among the natives. The botanical position of the plant was fixed by Dr. Vasey of the Agricultural Department at Washington. The reports following its use by others fully corroborate that originally made by Dr. Saxton, and have established Lippia Mexicana as a remedy of great value in the relief of distressing cough whether due to acute inflammation or to more chronic pulmonary lesions, as in phthisis, chronic bronchitis etc.

DOSE—FLUID EXTRACT LIPPIA MEXICANA (P., D. & CO.), 30 MINIMS TO A FLUIDRACHM.

CHEKEN.

(Myrtus Chekan.)

This plant, indigenous to Chili, was introduced to the English profession by Dr. William Murrell, the famous English therapeutist and collaborator of Ringer, as a remedy for the "Winter Cough" of elderly people. Dr. Murrell's favorable reports have been endorsed by the experience of many practitioners of this country, and Cheken is entitled to a prominent place on the list of remedies for chronic bronchial affections of an inflammatory or catarrhal nature. Dr. Dessauer, of the German Hospital of Valparaiso, speaks in high terms of it as a remedy also when the discharge is of a purulent nature. It is a valuable adjuvant in cough mixtures, its influence being alterative and demulcent.

We solicit for this new drug a thorough trial in the catarrhal affections peculiar to this season, confident as we are that it will prove a valuable expectorant.

DOSE—FLUID EXTRACT CHEKEN (P., D. & CO.), 1 TO 2 FLUIDRACHMS.

DETROIT, MICHIGAN.

NEW YORK:
60 Maiden Lane & 21 Liberty St.

PARKE, DAVIS & CO., MANUFACTURING CHEMISTS.

WELLCOME INSTITUTE LIBRARY
Coll. WelMOmec
Coll.
No.

THE
CINCINNATI MEDICAL NEWS.

VOL. XVI. No. 183. Old Series. | MARCH, 1883. | VOL. XII. No. 3. New Series.

Original Contributions.

The Etiology of Consumption.

BY D. N. KINSMAN, M. D., COLUMBUS, O.

Read before the Ohio State Medical Society.

MORTON, in his treatise on consumptions, treated of eleven varieties, basing his divisions on their etiology. Bayle, classifying on the basis of morbid anatomy, described five kinds. Laennec reduced all forms to one, *i. e.*, tubercular.

Reinhart and Virchow led a revolt against this exclusive view and made two divisions. Niemeyer threw his influence on this side. Opinions at the present seem to be tending toward the adoption of Laennec's views, and the idea of the unity of the disease.

I shall use the term consumption in its widest sense. Tuberculosis may be marked by general or local deposits, and it is yet a question whether the pathological changes which have been attributed to catarrhal process pure and simple are not due to tubercular infiltration. On this point I will speak hereafter.

Too much stress has been placed upon the presence of the anatomical entity known as tubercle, and too little account has been taken of the condition tuberculosis, which must precede the tubercular eruption.

This condition is as closely connected with the subsequent eruption of tubercles as the stage of incubation of small-pox is with the subsequent eruption.

The forming stage although concealed is a part of the morbid process.

Jaccoud divides consumption into three forms on the basis of etiology. Hereditary, inborn and acquired. In the first class he places those who have lost one or both parents from consumption.

The second class comprises those whose parents have not suffered from any form of consumption, but have had their vitality reduced by debauchery, syphilis, privation and insalubrious surroundings.

The third class includes those who have clear records as to parentage, and have taken consumption by contagion.

There is no term in medicine which has been so loosely used as Heredity. It is used to denote the transmission of a tendency to a special morbid action. In this sense it is used by most of the profession when speaking of hereditary consumption.

It is used in the second place to indicate the actual transmission of a disease from infected parents to their offspring. This is the signification of the term when applied to syphilis.

Both of these usages can not be correct. In speaking of syphilis we do not think a tendency to the disease has been transmitted. We know there was a "generative contagion" and we expect and are not disappointed in the outbreak of syphilis in the child of syphilized parents who have not been the subjects of successful anti-syphilitic treatment.

Recent developments in relation to the inoculability and contagion of tubercle, render it probable that we are coming to the position in which we shall be obliged to regard the hereditary transmission of consumption in the same light, in which we at present regard the hereditary transmission of syphilis. But it may be objected that the outbreak of syphilis is speedy, occurring during the first weeks of life, and the causal relation is immediate and evident, while the development of consumption is delayed for years.

To this we reply, both diseases are inoculable. In both syphilis and tuberculosis, the fetus in utero shows the peculiar lesions of the two diseases, when the diathesis has been potent enough to destroy life. They each have a special mode of evolution. In both diseases we must conclude the new being has had its organization impressed by the poisoned germ and sperm cells which united in its inception.

"Heredity," which, according to the profound and happy expression of Baume, is nothing but a "generative contagion," "may transmit to infants either the diathesis itself, or the physiological formula of constitution and temperament

which will render them more apt to receive the germs coming from without and cause them to fructify."—*Fossagrives.*

"In hereditary phthisis, the diathesis, that is to say the vicious disposition to make tubercle, is here at the maximum. Contemporaneous with the conception of the being, it becomes an integral part of its personality, it is one of its attributes."—*Jaccoud.*

The tubercular diathesis intensifies from generation to generation, so that the intermarrying of those who are affected with the hereditary taint resembles a long continued cultivation experiment, till in the end the children of these highly diathetic parents perish before they arrive at a procreative age—abolishing thus the diseased progression by the destruction of the family. Such experiences are common. Nor is this increase of virulence of the infecting power of tubercle unknown in experimental pathology.

H. Martin has shown that tubercle is to be known by its inoculability—and this capacity for inoculability extends indefinitely, while pseudo-tubercles, or those growths caused by the injection of indifferent materials, cease to be inoculable in the second or third generation. He has further shown that the exposure of tubercle in a test tube to a heat of from 60° to 85° for a short time developed in the material such virulence as to cause the death of guinea pigs in a few hours, with acute peritonitis and gangrene of the liver. While other guinea pigs inoculated with the fresh matter survived for weeks. Tuberculous matter exposed to the temperature of boiling water becomes inocuous when inoculated.

These experiments afford a strong confirmation of the idea that the poison in tuberculosis is parasitic.

Now if there is a contagion which can be transmitted from parent to child, we should expect the time would arrive, when, in cases where the diathesis is strongly marked from its existence in successive generations, the infection would pass beyond the fetus and affect a healthy mother during her pregnancy as occurs in syphilis.

That such a mode of transmission of tuberculosis may occur we think the following cases, reported by Hermann Weber, which I have quoted from Dr. Clapp's book, *Is Cousumption Contagious,* render extremely probable.

J. had seen his mother, two brothers and a sister die of pulmonary consumption, and had himself on two occasions had hemorrhages when twenty and twenty-one years old.

He became a sailor and was apparently in good health when he left home, in his twenty-fifth year. He married four wives.

First. A woman belonging to a perfectly healthy family. She enjoyed excellent health until her third pregnancy, when she began to cough and grow thin. She died after her third confinement.

Second. At the end of a year he remarried. The second wife having every appearance of health, but at the end of a year of conjugal life, she began to cough, spit blood and soon after died of quick consumption.

Third. The third wife belonged to an exceptionally healthy family consisting of a father, mother, four brothers and two sisters, all living and in good health. When she was married she was twenty-five years old, and continued to have good health, until her second pregnancy, when she began to cough, and have feverish turns. She had two hemorrhages, and when I saw her, seven weeks after her second confinement, she showed extensive lesions in the upper part of her lungs, also hectic fever and profuse sweats. A month later she was taken with severe hemorrhages, and died shortly after, eight months from the appearance of the first symptoms. The autopsy revealed pneumonia and tuberculous consumption combined, to make use of an expression employed by the late Dr. Addison, who visited the case with me.

Fourth. The fourth wife, whom I also attended, had not a sign of consumption in her family and at the time of her marriage was twenty-eight years old, and in the enjoyment of perfect health. About thirteen months later, three months after her first confinement, which resulted happily, she began to cough, and had a little fever. Then very clearly defined signs appeared first in the upper part of the right, then the left lung. She experienced some relief during a voyage which she took to Melbourne, but on her arrival there had a severe hemorrhage, and died a short time after her return to England, nine months after the appearance of the disease. The autopsy showed extensive pneumonia and tuberculous lesions in both lungs, as well as tubercles in the intestines, spleen and liver.

At two different times in 1854 and 1857, after the third wife's death, and during the illness of the fourth wife, I had occasion to examine J. His general health was excellent and he assured me he did not cough, and merely expector-

ated a little mucus in the morning. The upper part of the left thorax was flattened and percussion showed it to be less resonant than the right; inspiration was less distinct, expiration was prolonged and from time to time rales were heard.

He did not remarry, not wishing to expose his choice to "certain death." He was healthy and continued to do active duty as a sailor until 1869, when he was forced to keep his bed for some months on account of a severe fracture; he then began to cough. The upper part of the right lung, which had until then been healthy, became diseased, and consumption developed in the usual way and caused the patient's death in 1871.

The autopsy showed cicatrization where the disease had first seized him, and also more recent lesions.

Another case by same authority: W. belonged to a consumptive family. He had lost his father and two sisters by that disease, and had himself had hemorrhages and other pulmonary symptoms at the age of nineteen, but he had in three successive winters made voyages to Venice, and was so much improved that he considered himself well. When twenty-six he married. His first wife was young, in excellent health and belonged to a remarkably robust family. She began to cough near the end of her first pregnancy, had hemorrhage after confinement and died of consumption four months later.

Second. He again married in 1852, a young girl of twenty-one, perfectly healthy but not without hereditary taint. She continued healthy during her first pregnancy, and to the middle of the second, when she had several attacks of "inflammations of the lungs," followed by two hemorrhages from which she never recovered, dying of consumption four months after her second accouchement.

Third. After a rather short interval he again married. The woman was young and stout. Her father and mother were healthy, as were her four sisters and her brother. About three months after her second confinement she was attacked by inflammation of the lungs, from which she never recovered. Both lungs were affected, the right to a greater degree than the left. She had too severe attacks of fever every day, frequent sweats, diarrhea and considerable emaciation. Tubercular meningitis set in a short time after my first visit to the patient, and she died nine or ten months after the appearance of the first symptoms. The autopsy showed ex-

tensive lesions on the right side, and a general miliary tuberculosis. The uterus was healthy.

The husband's general health appeared good; he could walk long distances, but when he remained quietly at home he suffered from dyspepsia. The regions above and below the clavicle on the right side were flattened, and when struck the sound was dull. The respiratory murmur was entirely wanting and once in a while dry rales were heard. The patient was hypochondrial and filled with remorse several months after his wife's death, but he rallied and lived much in the open air.

He was stricken with typhoid fever in Germany, followed with a pleuro-pneumonia. He died of consumption six months after the fever.

By same authority: Z.—no information about his family—had two hemorrhages about the age of nineteen; was ill at this time several months, but had entirely recovered and had exposed himself to all kinds of weather without experiencing any ill effects. At the age of twenty-three he was married. His first wife was a healthy and robust woman, twenty-one years old, with no predisposition in her family to consumption, but after the birth of her first child she became ill and died in five months from quick consumption.

About two years after, he married a strong woman, twenty-seven years old, belonging to a remarkably healthy family. Eighteen months after her marriage, and three months after her accouchement, she began to cough and grow thin. The cough never entirely disappeared. Two months later she again became pregnant, and when I saw her she was in her eighth month of pregnancy and very thin.

It was a type of consumption in the last stages; the greater part of the left lung being affected, but not to such an extent as the right. A month later she was confined and lived three months after it. The autopsy showed lesions from recent sub-acute consumption, *i. e.*, infiltration of gray color and of different consistencies, cavities recently and irregularly formed, with no lining, and gray and yellow tubercles scattered about.

Z., the husband, considered himself well, nevertheless showed flattening in the upper part of the left side. The resonance on percussion was plainly imperfect, as well in the region above as below the clavicle as in the corresponding places behind.

Six years later, after his return from Germany, in 1865,

he again had severe hemorrhages and died in 1866. I have no information of the autopsy.

The following case occurred in Ohio. Mr. B. had seen his father, mother, three brothers and a sister die of consumption. He had had cough, emaciation and expectoration for months but recovered. He was married three times.

First. A strong and vigorous woman in whose family after a lapse of twenty years there has been no consumption. She became pregnant, during which she began to cough. She rapidly sunk, and died of consumption fifteen months after her marriage. In two years, he again married a large and robust woman, with no hereditary taint. She became pregnant, began to cough and grow thin during its progress, and died eighteen months after her marriage.

The third wife was a frail, delicate woman. No history of hereditary taint. She did not become pregnant, but died five months after her marriage of quick consumption. Last of all, B. died also of consumption.

Nor is hereditary transmission of consumption confined to the human being. Burdon Sanderson says that the progeny of a Scotch bull, whose lungs were found stuffed with tubercles after his death, were infected with the disease. A phthisical ram infected fifteen or twenty of his progeny in a flock of merinoes. Guinea pigs tubercularized by experiments have produced tuberculous offspring. Tuberculosis is the transmitted diathesis. The transmission we recognize when the tubercle has been formed, for it is the only thing which the morbid anatomist recognizes as the index of tuberculosis.

Thus much on the nature of hereditary transmission. I shall now consider the third category of Jaccoud, the acquired cases. In this class are placed those cases which arise by accidental implantation of the germ from an unknown source, and those where there is evidence of direct contagion—or communication of the disease from the sick to the healthy.

That consumption is contagious there can be no question. The number of experimenters and the general harmony of their results admit of no reasonable doubt. Tubercle is inoculable and therefore contagious. By a contagion I mean a poison which has been elaborated by a diseased process going on in the body, and is capable of reproducing the same morbid process in any body into which it shall be introduced, hitherto unaffected. The proofs of this are drawn from the field of experimental pathology, with which all are

familiar during the last decade, and from clinical observation.

I shall now report a series of cases illustrating the contagiousness of consumption. Some months ago I sent out a large number of copies of the following list of questions. I received twenty-five replies; too few for analysis, but many interesting cases were reported which I shall now introduce. I take this opportunity to return my thanks to all those medical gentlemen who have assisted me in this work.

1. Have you knowledge of the destruction of families by Consumption, in such a manner as to give evidence of the communication of the disease from the sick to the healthy persons of the family?

2. Do you know of any cases of the communication of Consumption from phthisical husband to a healthy wife—or from a sick wife to a previously healthy husband?

3. Do you know of any instances in which Consumption has been introduced into a previously healthy family, by having a person sick with Consumption taken into their home, and nursed there till death?

4. Do you from the evidence of your professional experience believe Consumption is ever communicated from the sick to the healthy, unless they are the victims of a diathetic tendency to the disease?

5. Do you think Consumption more frequently arises in the children of parents who have died from the disease, than in the children of those who have died from other chronic diseases of early and middle life?

6. Can you give any estimate of the proportion of *hereditary* and *acquired* cases of Consumption in your practice?

I. G. was born in a family in which there never was a case of consumption known. He lived a healthy, active life working at the carpenter's trade. His wife descended from a family in which there was hereditary taint. In 1865 Mrs. G. had a hemorrhage from the lungs. I first saw her in 1866, when she was still suffering from a hacking cough and some emaciation. In October, 1866, she brought her daughter, aged 18, for examination. She had cough and consolidation of the apices. She died in the spring of 1867. The mother became worse and had a succession of hemorrhages, severe cough, much expectoration and emaciation. Mr. G. occupied the same bed with his sick wife. In September, 1867, Mr. G. began complaining of sore throat and the laryngoscope showed what I diagnosticated tubercular ulceration of the

larnyx. He became aphonic. The dysphagia became extreme, he emaciated and finally died in 1868, in May, I think. Mrs. G. died a short time after her husband. Three other daughters followed in quick succession, so that in five years the whole family was extinct.

I could never in Mr. G., recognize any respiratory change in the lung but harsh expiration. I think he was infected from his wife.

CASE 2.—Mr. C., age 33, consulted me in 1879, in February. Had until a few months ago been a healthy man. He knew of no hereditary taint in his family. He was married eight years ago to a woman in feeble health, who bore him one child. Consumption developed in his wife and she died in 1877. .During her illness he had much of the care of his wife, sleeping in the same bed, till the close of her life. Six months after her death he began to cough and emaciate. His throat became sore about a year ago. He was aphonic when I saw him and had tubercular laryngitis. His feet were edematous. He had cavities in his lungs. He died the last of March, 1879. I believe this disease to have been communicated to the husband from the wife.

Dr. Geo. W. Boerstler, of Lancaster, reports the following:

A. M., in whose family there is not known to be any hereditary taint: Father at 60 died from strangulated hernia; mother still living. Married Miss W., whose family is likewise free from hereditary taint. One child was born, the mother suffered great prostration during lactation. She subsequently had an attack of pneumonia from which she never recovered. Consumption developed and she died eighteen months thereafter. During her sickness her husband occupied the same bed with her till the close of her life. About one year after the death of his wife, A. M. married a second ime, to Miss G., then a strong and healthy woman in whoset family we can trace no hereditary taint. A short time after his second marriage, A. M. began to cough, had fever, emaciated and had hemorrhages from the lungs and died of consumption two years after the death of his first wife.

Soon after the death of A. M. his second wife was attacked with consumption and died eighteen months after her marriage. I think undoubtedly, A. M. took consumption from his first wife and communicated it to his second wife.

Dr. H. M. Henderson, of Marysville, Ohio, reports:

H. B. married into the family of J. N. Mr. B. began to

cough in February, 1879, and had some hemorrhage from the lungs. Finding his cough increasing and strength failing he rented his farm and moved to the house of Mr. N., his father-in-law, "to die," as he said, for none of his family ever recovered from the disease he had. In October, 1879, his wife was prostrated by an attack of intermittent fever, leaving her only sister, aged 19, to act as nurse for Mr. B. and his wife. I cautioned Miss N. not to inhale the breath of Mr. B. when he was coughing as there was danger if she inhaled any of the particles of matter, of her contracting the disease. Mrs. B. and Miss N. replied: Then we both shall take the disease, for we have inhaled his breath many times and could even taste it. The result was, Mr. B. died in December, 1880. Mrs. B. and her sister died of consumption in April, 1881. The deaths of the sisters occurred only five days apart. These were, I think, clearly cases of contagion.

W. married into the family of A. A's wife and three daughters died of consumption. One of the daughters was W's wife. I cautioned W. against inhaling the breath of his wife, who was sick with consumption, during her paroxysms of coughing. Before the death of his wife, W. began to cough and shortly afterwards had a hemorrhage. He coughed and spit blood for more than a year. He then got better and is now living although suffering more or less from cough. There has never been a case of consumption in W's family. A most suggestive case on the influence of the breath of tuberculized persons in communicating the disease to others is reported by Reich and quoted in the second volume of Reynolds' Practice, Am. Ed., page 117, to which I refer you, for the particulars.

Dr. N. B. Ridgeway, of Galion, Ohio, reports:

John A. was attacked with what was diagnosticated consumption, yet there had never been a case in his family, either in the near or remote branches, so far as could be learned. He had a cough and expectoration and there were evidences of a cavity in the left lung. He then improved for a time. A relapse followed, with an opening through the chest wall whence much matter was discharged. He also had repeated hemorrhages from this opening, occurring at intervals for months. He was confined to his room for a long time. His father was his nurse for one year and a half, never removing his clothes to sleep for ten months. In less than a year after the death of the son the father died of consumption. A daughter aged sixteen, who nursed her father,

contracted the disease and died in a few months. Another son is now sick with hemorrhages. There were three fatal cases of consumption in this family in two years.

Dr. M. F. Lee, of Columbus, reports the following cases:

Mr. B., born of consumptive parents, married at the age of 26 a perfectly healthy woman in whose family no evidence of hereditary taint could be traced. Two years after his marriage he began to cough, lose flesh and died in two years from consumption. During his protracted illness he was cared for night and day by his wife, who slept in the bed with her husband till his death. A few months after, his wife began to cough, lose flesh and complain of pain in her right lung. Eighteen months thereafter she died. During her illness her brother, who had nearly completed his college course, abandoned his studies and nursed his sister, sleeping in the same room with her. Two months after the death of his sister he began to cough and complain of exhaustion. He had frequent hemorrhages from the lungs, and at the expiration of sixteen month she died. A married sister who had hitherto been in excellent health, took care of the young man during the last six months of his life. After his death she became pregnant. She soon began to complain of trouble in her lungs. She emaciated so rapidly that in the seventh month of her pregnancy she was obliged to keep her bed. She suffered premature labor from the severity of her cough, and she soon died from consumption. The parents and two remaining daughters are still living, after a lapse of ten or twelve years, in excellent health. The last mentioned persons had only an incidental contact with the members of the family who were sick and died. The evidence of contagion in these cases seems to me undoubted.

Mr. and Miss E., brother and sister, were members of a family of eight children, all of whom grew to an unusual size. In the family there is no history of hereditary taint. The father was injured in a storm and died from the effects of this accident. The mother died of carbuncle after the death of the father. The brother and sister took charge of a farm a few miles distant. Here the brother was taken with consumption. He rapidly sunk. During his illness his sister had sole care of him, sleeping in the same small, badly ventilated room. A newspaper was hung on the side of the wall, against which the patient discharged his sputa. This paper hung here all night, desiccating by the heat of a stove, and then would be replaced by a fresh one. The brother

died. Soon after his death the sister began to cough and in eight months died. The other brothers and sisters remain healthy. We believe the sister's disease was communicated to her by the diseased matters discharged from the lungs of her consumptive brother. Nor do we think it would be possible to devise a better mode for certain communication of consumption than was accidentally put in operation by these unfortunate people.

Translations from Our Foreign Exchanges.

BY DR. ILLOWY, CINCINNATI, O.

INOCULATION OF SYPHILIS IN THE MONKEY.

In a previous number of the Medical News were published some interesting experiments of M. Martineau, touching the inoculation of syphilis in the pig, and his researches on the parasitic character of the syphilitic virus.

We now present some further experiments of M. Martineau (published in the *Tribune Medicale*) as regards the inoculation of the monkey with syphilitic virus.

November 16, 1882, at 10½ A. M., we inoculated a monkey. The inoculation was practiced on the prepuce by means of a vaccinating needle, charged with serosities collected from a syphilitic chancre on the anterior border of the right labia minora of a patient lying in No. 37 Ward, Natales Guillat, who entered the Lourcine November 14.

The monkey had been previously anesthetized; the inoculation was practiced on the inner surface and near the extremity of the prepuce, in three different points—two lateral and one anterior.

At the same time the patient herself, from whom the virus was collected, was inoculated on the right thigh, in order that all doubt might be removed that the existing sore was really an infecting syphilitic chancre. The results of this latter inoculation were completely negative.

Up to the 14th of December no morbid phenomena, either general or local, were observed in the monkey. On this day, the twenty-eighth of the inoculation, we discovered, at the two lateral points of inoculation, two infecting chancres of the size of a small lentil, characterized by a superficial erosion,

the bottom smooth and polished, grayish rather than reddish, the borders slightly raised, flattened, not sharply cut off, and gradually losing themselves on one side in the center of the erosion, and on the other side in the surrounding tissue. These erosions rest on an indurated base, giving to the touch the sensation of parchment. The induration is strictly limited to the erosion, so that it is easy to enucleate it as it were from the skin and surrounding parts. It is exactly such sort of a foreign body as serves to characterize in man the syphilitic indurated chancre.

The chancre of the left side is more voluminous than that of the right.

December 16. Aspect of the chancres the same; but there is found in the left groin the development of a ganglion of the volume of a hazel nut, mobile, and seemingly not at all painful. The skin covering it is likewise mobile over its surface, and presents no discoloration.

The general condition of the animal continues excellent; its temperature about 97° F. The indocility of the animal renders the taking of the temperatures difficult.

17th. Same general and local condition; temperature about 99°.

18th. Same condition; temperature, 99½°.

19th. The animal suffering from diarrhœa; temperature, 99½°; local status same.

20th. The diarrhœa persists; temperature, 100.5°; appetite excellent; local status same.

21st. Diarrhœa ceased; temperature, 100.5°; development in the right groin of a ganglion of the same volume as in the left, and presenting the same character as regards mobility and indolence.

Great thirst; paws warm; probable symptoms of a febrile condition. The temperature not having been taken before the inoculation, it is difficult to affirm that 100.5° indicates in him an elevation of the animal heat; in fact, a fever. Nevertheless, there has been since the seventeenth a sensible augmentation of this temperature. We must add, moreover, that this monkey is very old; that his paws were habitually cold, and that he was always keeping near the stove of the room in which he was kept.

It seems from this first and very circumstantial observation that the transmission of syphilis by inoculation from the human system to the monkey is possible; in fact, has been

realized. There remains in this well-defined cycle of experimental study to discover the inoculability, from one animal to the other of the same species, of accidents primarily developed in such one, and even such one itself to determine, if possible, the conditions of vaccinal preservation, etc. This is an open field for fruitful researches of the highest importance, and which we hope M. Martineau will continue to cultivate.—*Tribune Medicale.*

PRODUCTION OF SURGICAL ANESTHESIA BY THE COMBINED ACTION OF PROTOXYDE OF AZOTE AND CHLOROFORM.

Note of M. Saint Martin presented to the Academy of Sciences.

According to the experiments made by the author upon himself and animals, the mixture of 85 vols. of protoxyde of azote, and 15 vols. of oxygen, to each hectolitre of which 6 or 7 grms. of chloroform have been added, produces anesthesia very rapidly, and seems to suppress the period of excitation, the chloroform being much more diluted, if one may be permitted to so express himself, and therefore does not in this condition have any irritant effect on the respiratory tract.

The sphere of usefulness of this mixture is certainly more extended than that of chloroform; it lies between that of the last-named agent and that of the protoxyde of azote.

By this method we can avail ourselves of the superiority of protoxyde of azote as an anesthetic agent, whilst avoiding the condition of operating under pressure.—*Tribune Medicale.*

FISSURES OF THE NIPPLE.

Monti advises to paint the nipple with a fresh solution of gutta percha in chloroform—just enough chloroform to render the solution fluid. When dried, this forms a protective pellicle which does not come off even by nursing.—*L' Union Medicale du Canada.*

FOR SPASMODIC AFFECTIONS OF THE RESPIRATORY TRACT IN CHILDREN.—SIMON.

℞ Tinct. belladonna.
Tinct. aconit. rad., . . . *aa. M* 75
Vin. opii, ... *M* 75

M.—3 drops morning and evening, increasing the dose by one drop daily.—*L' Union Medicale du Canada.*

ICHTHYOL.

In the December number, *Monatsheft f. praktische Dermatologie* reports on the use of ichthyol. This is a tarry looking substance, containing sulphur, obtained by a complicated process of distillation from a bituminous stone, first discovered by Dr. Rudolph Schroter in the neighborhood of Seelfeld, in Tyrol.

Dr. Unna speaks very highly of it in the treatment of eczema, psoriasis, and other chronic skin affections. He recommends a 40 to 50 per cent. solution in vaseline or adeps for adults; 2 to 10 per cent. for children. An advantage possessed by ichthyol over other antieczematous agents, is that it allays pain and itching, uniting in itself the good qualities of Hebra's and Wilson's ointment, and of carbolic acid (respect. tar.). Another great advantage over other sulphurous preparations is, that it may be combined with preparations of lead and mercury without causing deposits of metallic sulphates. Dr. Unna recommends the following as an exceptionally effective formula for obstinate eczema, and especially of the hand:

℞	Lithargyri, ...	grms. 10
	Cog. c. acet., ...	" 30
	Ad remau., ...	" 20
	Adde.	
	Ole olivar. adipis, *aa*, . . .	grms. 10
	Ichthyoli, ...	" 10

M. Ft. Ung.

NERVOUS CENTERS GOVERNING UTERINE CONTRACTIONS.

M. Pembo reported to the Biological Society his belief that he had acquired sufficient proof of the existence of autochthonic centers governing uterine contractions. These centers had their seat in the anterior wall of the vagina, and were independent of the cerebro-spinal axis. Their presence in the anterior wall of the vagina is disclosed by uterine contractions coming on as soon as the electric current is brought in contact with them. Anatomically they are characterized by small nerve ganglions, of which the author presented several beautiful specimens.

M. P. Bert objected that the spinal centers could not be put aside altogether in the production of uterine contractions. The following experiment is proof of this fact. A section is made through the dorsal portion of the spine of a rat

about to throw her young. The animal is now asphyxiated, and the hardening of the uterus will be perceived under the hand. If, on returning consciousness, the inferior portion of the spine be divided, and the asphyxia renewed, the uterine contractions do not appear any more.—*Prog. Med., No.* 1.

A Case in which an Attack of Acute Inflammatory Glaucoma was Immediately Followed by Inflammation of the Brain.

BY CHARLES J. KIPP, M. D., NEWARK, N. J.

Read before the American Ophthalmological Society.

Mrs. H., fifty-one years of age, a stout, healthy German woman, came to the Newark Charitable Eye and Ear Infirmary on December 3, 1881, with a letter from Dr. T. Y. Sutphen, of Newark, stating that he had first seen the patient on the day before, and that he found her suffering from acute glaucoma, for which he had prescribed instillations of the sulphate of eserine. From the patient it was learned that the attack began ten days before with great pain in her back, which was followed a few days later by severe headache and sickness of stomach. On the advice of her family physician she applied a fly-blister behind the right ear, and another above the right eye, on November 28th, and within less than half an hour after their application the right eye became red and excessively painful. Since then the sickness of stomach and the pain in the head and eye have continued. Within the last few days the right eye has become blind.

The symptoms presented by the eye when I first saw the patient were those of acute inflammatory glaucoma. There was, however, greater congestion and chemosis of the entire ocular conjunctiva than I had ever before seen in this disease. The pupil was of medium size—a one per cent. solution of the sulphate of eserine having been frequently instilled during the preceding twenty-four hours. The media were so cloudy that the fundus oculi could not be seen. The eye had perception of light only. Tension + 2. The pain in eye and head was almost unbearable.

I immediately put the patient under the influence of ether, and made a tolerably large iridectomy upward with a narrow

v. Graefe knife. The operation was perfectly clean, but all efforts to return the corners of the sphincter to their proper position were fruitless, although no iris was apparently remaining between the lips of the wound. During the night following the patient slept soundly, and next morning was entirely free from pain in eye and head, and the tension of the eye was normal. On the third day after the operation she was able to see me distinctly with this eye. The anterior chamber was restored, and the congestion and œdema of the ocular conjunctiva were subsiding. But during this day the left eye became painful and inflamed, and on the morning of the fourth day presented the symptoms of a moderately severe attack of acute glaucoma, which, however, yielded to instillation of the sulphate of eserine in the course of two days, and left the sight of this eye unimpaired. The only feature of this attack worthy of mention was the excessive pale œdema of the ocular conjunctiva, which, in some places, was raised in the form of blisters.

Ten days after the iridectomy the right eye was nearly free from conjunctival injection; the anterior chamber was somewhat shallow; the iris nearly normal; the pupil of medium size, and the media were clear. Tn. The left eye was apparently healthy; the pupil small and fastened by numerous small synechiæ to the anterior capsule. At the urgent request of the patient, I allowed her on this day to be taken in a carriage to her home, which was but a short distance from the hospital.

During the following ten days the eyes continued to improve, but on December 25, twenty days after the iridectomy, the right eye became again very painful, and the sight failed rapidly. At my visit on this day I found some œdema of the lids, and the ocular conjunctiva intensely injected and very œdematous. The cornea was clear, but the iris was discolored and swollen. The pupil and the coloboma were apparently somewhat smaller than before. The vitreous was so full of opacities that the optic disc could not be seen.

The lids of the left eye were also puffy, and the ocular conjunctiva œdematous, but not so much injected as in the right eye. The cornea was dull. The anterior chamber of about normal depth, and the iris somewhat discolored. The pupil was small and excluded. The vitreous was very hazy. This eye was also very painful. Vision was not, so far as I could make out in her own room, greatly impaired. In both eyes the tension was little, if any, above the normal. The

patient complained chiefly of the severe pain at the top of her head, and of persistent distressing nausea. Pulse 96; temperature normal.

In the absence of a marked increase of tension in either eye, I concluded to delay further surgical interference, and ordered applications of ice to the lids of both eyes, and instillations of the sulphate of eserine in the right eye. Morphine was administered for the relief of the pain.

On the following day the pain in the head and the eyes and the nausea continued unabated. The swelling and congestion of the ocular conjunctiva of the left eye had increased. The iris was more swollen and the tension slightly increased. The right eye was unchanged. I now requested that the patient be transferred to the infirmary for the purpose of making an iridectomy on the left eye. Meanwhile instillations of eserine were made in both eyes, and the sulphate of quinine was given in considerable doses.

In the afternoon of the next day the patient was brought to the infirmary. An examination made at this time showed the left eye to be in about the same condition as on the previous day. In the right eye the cicatrix of the iridectomy had become softened, and at both ends a small prolapse of iris was seen under the conjunctiva. Otherwise this eye remained as before. The patient was put under the influence of ether, the prolapsed iris in the right eye was abscised, and a small but clean iridectomy made on the left eye. The abscission of the prolapsed iris caused the evacuation of the anterior chamber. Notwithstanding these procedures, the pain in the eye and the head and the nausea continued.

On the second day after these operations the swelling and injection of the ocular conjunctiva of the right eye was as great as before; the anterior chamber was not restored; the iris was swollen and the pupil small. In the left eye the ocular conjunctiva was more swollen and injected than before the operation; the anterior chamber was restored; the iris was discolored, and the pupil contracted. The pain in the head and the eyes continued. Atropine was instilled in the left eye.

On the following day the right eye was unchanged. In the left eye the aqueous humor was turbid; otherwise there was no change. Patient was very restless, and complained bitterly of the pain in the head and eyes.

Next day a fibrinous exudation covered the iris, and a star-shaped mass obstructed the pupil in both eyes. Not-

withstanding frequent instillations of a two per cent. solution of atropia in the left eye, the pupil remained very small. Six leeches were applied to each temple, and warm water fomentations were kept steadily on the eyes. The instillations of atropia were continued. Quinine was administered as before, and morphine was given in sufficient quantity to control the pain.

The eyes remained in this condition during the next three days, and then began to mend slowly. The swelling of the ocular conjunctiva subsided gradually; the aqueous became clear; the exudation disappeared from the iris, and the plug in the pupil was changed into a thin membrane. The pupil remained contracted. On the seventh day after the iridectomy on the left eye the patient raised a considerable quantity of a dark-red fluid. During the night she perspired a great deal, and was mildly delirious. No evidence of disease of the lungs or of the heart could be discovered. There was no cough. The temperature was normal and the pulse varied between 90 and 100. The expectoration of the dark fluid continued for two days and then ceased. After this the patient was comparatively free from headache and from pain in the eyes; but the nausea, the night-sweats, and the mild nocturnal delirium continued. During the day she slept considerably. Her bowels were constipated, and she complained a good deal of dysuria, which was, however, speedily relieved by the free use of flax-seed tea.

On January 7, eleven days after the iridectomy on the left eye, both eyes became again very painful. The lids of the right eye became œdematous, and the ocular conjunctiva swelled to a greater extent than at any previous time. The corneal cicatrix of the iridectomy reopened in its entire extent, and the iris was protruded between its lips. The tension of the eyes was greatly diminished. The lids of the left eye became also swollen, and the fleshy chemosis, which had greatly diminished, rapidly attained its former degree. The aqueous was muddy, and the iris much swelled. Tension of this eye was about normal.

The headache was now as severe as ever. In the daytime the patient was in a state of stupor, from which she could be aroused, however, without great difficulty. During the night she was violently delirious. All food was refused. The nausea and the constipation continued. Temperature and pulse were normal. In addition to the medicines previ-

ously mentioned, she was now given small doses of calomel. The bowels were moved by castor oil.

On January 10 the right eye was unchanged. In the left eye the anterior chamber was greatly diminished in depth; otherwise the eye presented no change. Both eyes were so sensitive to the touch that the patient would cry out if an attempt was made to open the lids. From this time until her departure from the hospital the eyes remained in the state last described. There was but little change in the other symptoms. The patient was in a semi-somnolent condition all day, and frequently moaned pitifully. The night-sweats ceased, but the delirium continued.

On January 14 she became comatose; passed urine in bed; obstinate constipation.

On January 16 she had a series of epileptiform convulsions. The coma continued; at times a dark fluid escaped from the mouth when the head was turned to either side. Pulse 120; temperature normal.

January 20.—Since last report the patient has had daily a number of convulsions. The coma continued till this morning. The patient has taken some liquid nourishment and appears to be conscious at times. She has to-day, for the first time, asked for the chamber, and apparently knows her nurses. Most of the time she is asleep. Pulse 120; skin cool. Bowels moved to-day for first time for a week. This improvement continued until the night of January 24, when she became so greatly excited that it required several persons to prevent her from getting out of bed.

January 25.—Patient was delirious all day. She refused to take food, and spit out all that was put in her mouth. She vomited several times, and had a passage from her bowels. In the evening she had another series of epileptiform convulsions.

January 29.—Since last report the patient has been delirious night and day. Morphia and bromide of potassium were given, but had but little effect. The bowels were again constipated. She took but little food. At times she would ask for the chamber to urinate, and at other times pass her water in the bed. Pulse 120–130; temperature normal. Patient was on this day removed from the hospital to her home, where she died February 8, at 9 A. M.—sixty-seven days after she came under my observation. As regards the symptoms during the last ten days of her life, I know nothing. No autopsy was made.

Remarks.—The case here reported is the only one in which cerebral disease supervened on glaucoma occurring in my practice, and I have been unable to find in the literature accessible to me a report of a case at all resembling the above.

It is well known that an attack of acute glaucoma is sometimes developed in the course of severe inflammatory diseases of other organs, and in fevers, and it seems to me to be not at all improbable that in this case also the cerebral disease existed at the time the glaucoma first manifested itself. The backache, the pain in the head, and the distressing nausea which preceded the pain in the eye may as well have been symptoms of the cerebral disease as of the glaucoma, though it must be admitted that this supposition is not strengthened by the fact that the symptoms enumerated were relieved for some days by the iridectomy. That the brain affection was caused by the glaucoma will not be maintained, I think, by any one familiar with brain diseases. With regard to the very unusual course of the eye affection, I am inclined to think that the numerous posterior synechiæ observed in the left eye after the first attack of glaucoma were the result of the prolonged use of the sulphate of eserine. For the relapse of the glaucoma, after the iridectomy and reopening of the cicatrix, several weeks after the operation, I am unable to assign any other cause than the cerebral disease.

NOTE.—Since the above was written I have read Mooren's "Funf Lustren Ophthalmologischer Wirksamkeit," just published, in which I find it stated that the author has seen four cases of glaucoma which were caused by myelitis. In Mooren's opinion the glaucoma resulted in these cases from the irritation to which some of the fibres of the trifacial nerves were subjected at their point of origin. Mooren states it also as his conviction that a causative relation exists between softening of the brain and glaucoma, and mentions it as a fact that many glaucoma patients are, in later years, attacked by brain disease.

REMARKS.

The President was satisfied that some such connection between the eye and the cerebral symptom as was mentioned by the author did exist in some cases. He had one case of the kind, in which an attack of acute glaucoma was the initiatory symptom of a brain trouble, which terminated in death. At the autopsy he found softening of the brain with extensive and very severe atheromatous degeneration of the arteries.

Selections.

A Clinical Lecture on Gastro-Duodenal Catarrh in Young Children, in Harvard Medical College.

BY JOSEPH P. OLIVER, M. D., BOSTON.

PHYSICIANS in general practice are often called to see and prescribe for little patients, who present the following symptoms: They are delicate-looking, and one is told that for some time past they have complained of languor and weariness, particularly after slight exertion. They appear to be bright and fresh enough in the morning, but as the day wears on they are apt to be dull, and disinclined to play. When the hour to be dressed and go to the park arrives, they do not care to go out, but prefer to stay at home. Usually good-natured and amiable with their brothers and sisters or other companions, they now become peevish and fretful, complain of occasional headache, are restless at night, grind their teeth, have bad dreams, wake up suddenly in terror, and at times with pain in the legs. The appetite is capricious; to-day there is none whatever, to-morrow it may be voracious. After eating, they will frequently complain of pain in the region of the stomach and small intestine. The tongue is at times clean, and again it has a moist, milky coat, through which the papillæ show prominently. The tip and edges are usually clean, and not particularly red. The bowels may be constipated, or they may be so for a few days, and then a little loose, or the child may have a slight clay-colored operation daily for a week or ten days. The breath is at times very offensive. In the autumn or spring there is apt to be more or less follicular pharyngitis. Now, this condition of things persists till the child has what the mother calls a "bilious attack"—that is, headache, nausea, vomiting and diarrhœa. The child is then in bed for a few days, and after that is a little better for a while, but in the course of a few weeks goes through with the same thing again. Occasionally there is a little cough; short and hacking during the day, but loose in the morning. The temperature is never above the normal, unless the so-called "bilious attack" is protracted. Now, the foregoing symptoms go to make up what is called gastro-duodenal catarrh —an affection

which, in my experience, is very common, especially in girls between the ages of four and twelve. Sometimes the symptoms are vague and indefinite. The patients do not have the explosive or so-called bilious attacks, and the parents do not seek advice until the condition of emaciation or a slight cough suggests the terrible name of phthisis. The symptoms often come under the head of that unscientific term, "general debility," and I am very sure that in children these symptoms mean nothing more nor less than gastro-duodenal catarrh.

The affection is often met with after some exhausting disease like pneumonia or typhoid fever; it may, however, occur without being preceded by either of those affections. I presume that during the fever the system in general becomes so exhausted that the digestive organs partake of or share in the general weakness. In these cases the appetite is at times voracious, and, if the child is allowed to indulge it, the penalty of the indiscretion is generally pretty severe; an acute attack is developed with its train of distressing symptoms, such as pain in the head, nausea, vomiting, intestinal pain, and, perhaps, diarrhœa. As is well known, a child is not nourished by the bulk of food he takes into his stomach, but only by the food he can digest. In all children there is a constant tendency to acid fermentation of their food. This is very marked in feeble children; it may be due to their diet. The mucous membrane lining the intestinal tract is naturally active, and, on the slightest irritation, pours out suddenly and freely an alkaline secretion; if they have overeaten, or if starchy food has too largely entered into the diet, fermentation is set up, and an acid is formed which stimulates the mucous membrane to further secretion. Now, this excess of mucus is the *fons et origo mali* under consideration, for it interferes with the digestion and absorption of food. As a result, the child is imperfectly nourished, and, from lack of nourishment, the symptoms of general debility, or, properly in these cases, gastro-duodenal catarrh, are developed.

As I before stated, the affection is more common in girls than in boys. With watchful parents some children seldom have the explosive attacks. The cases are less severe, but the child is half sick all the time.

During second dentition this affection is extremely common, and often mothers believe this process to be the occasion of the child's ill-health. Worms are also supposed to be the cause of the illness, and it is not surprising that moth-

ers think so, for it is not unusual to find in these cases lumbrici or oxyuri. The excess of mucus which is secreted forms a favorable nidus for the development of the worm, and, consequently, the parasite is less a cause than a result of the disease.

The symptoms, then, may be briefly enumerated as follows. I refer to the subacute or chronic gastro-duodenal catarrh, not the acute affection. The so-called "bilious attacks" which occur in these cases are simply the affection rendered acute for a few hours or days, and need not be described in this lecture.

First, the child's appetite is capricious or fails altogether. He is constipated, and, perhaps, the constipation is followed by diarrhœa for a day or two. After this state of things has gone on for some time, he complains of feeling tired on slight exertion, is languid, indisposed to play. At times he is fretful and peevish, restless at night, grinds his teeth, wakes up suddenly with severe pain in his legs or in great terror. The child emaciates, the eyes are sunken and surrounded by dark rings. The skin becomes thin, harsh, and dry. There may be nausea and slight headache, with blurring of the eyes, and, in older children, muscæ volitantes.

Through all this the tongue may be tolerably clean, or it may have a light milky coat, with the papillæ showing through prominently, the latter fact being generally significant of digestive disturbances in children. The so-called "worm-tongue" may exist—that is, a tongue tolerably clean on the tip and edges, with a coating of shiny mucus in the center. The tongue is seldom markedly affected. The breath is often very offensive, though foul breath may be due to the disordered stomach or to buccal or pharyngeal catarrh. The cough which may be present is due to either slight bronchial catarrh, follicular pharyngitis, or elongated uvula. You frequently find hypertrophied tonsils in these cases, and the decomposition of the thick yellow secretion will account for the foul breath. Earache is not at all uncommon in these cases. I believe that I have before alluded to the occasional pain in the epigastric region after eating.

Now, having made a careful examination of the little patient, and having come to the conclusion that the symptoms are due to gastro-duodenal catarrh, having recognized the weakness of the digestive system, and having seen the evidence of defective nutrition, our indications for treatment are plain enough. We must increase the nutrition—that is, in-

crease the supply of food, but at the same time we must be careful in our selection, as the fact that the digestive system is feeble must ever be before us.

Treatment.—First, the diet is to be arranged; as the tendency to fermentation is so marked in these cases, I eliminate the starchy foods as much as possible. You can not deny a child from six to twelve years bread and potatoes altogether, but you can arrange an agreeable and varied diet, so that he shall get a minimum quantity of these articles. Many physicians believe that such cases would be benefited if oatmeal and cracked wheat should enter more largely into the diet; it is not so, however, according to my experience. It seems to me that oatmeal and cracked wheat illustrate most admirably the old adage that "what is one man's meat is another man's poison." Particularly in the summer season should the oatmeal be interdicted. In these cases I generally order a cup of weak mutton, chicken, or veal-broth, to be given to the child as soon as he wakes in the morning—before he gets out of bed even. A good-sized teacupful is enough; of course, it must be warm. Then, an hour or so later, a little toasted bread or stale French bread. The crust of the long French roll is excellent, and children usually like it. With the toast or French bread may be given a cup of milk and a hard boiled egg chopped fine, to which may be added a little butter and salt, or, better still, a little cream, or, in place of the egg, a little broiled fish. Some children will object to the milk, and in such cases you will do well to prescribe Schweitzer's cocoatina, Cadbury's cocoa essence, or Fry's cocoa powder. Children, as a rule, like the cocoa or chocolate flavor, and do not object to the milk when so disguised.

At noon a dinner consisting of beefsteak, chop, a little bird, roast beef or mutton, not too much cooked, with meat gravy; but no made gravy or sauce is to be allowed. At night dry bread and milk. The broth, if not too rich, may be repeated at this meal. Some mothers think this a pretty limited diet, but you should vary it as much as possible, and give four or five small meals a day instead of three larger ones. As the excessive production of mucus in the stomach and intestine is to be overcome gradually, and by constant efforts, I endeavor to attain this result in two ways: first, by diminishing the production—that is, by regulating the diet; and, secondly, by clearing out the exess or overproduction by means of cathartics regularly administered every third or fourth day. As cathartics I use the aqueous

tincture of rhubarb, licorice powder (German), pil. rhei. comp., and occasionally the following powder: ℞ Calomel, 1 part; pulv. jalap., 2 parts; pulv. scammony, 2 parts. M. To be given in syrup.

In mild cases the following recipe has often done good service, obviating the necessity of the regular administration of a cathartic: ℞ Podophyllin, gr. j; alcohol, ℥j. M. Five to ten drops on a lump of sugar morning and evening. The indications for this are constipation, clay-colored stools, and loss of appetite. I do not expect to get a cathartic action from the remedy, for if it produces such an effect it must be used in smaller doses or abandoned altogether. It is to be given for two or three weeks, or even longer. Under its use I have seen the tongue clean, the appetite return, and follicular pharyngitis disappear completely. Under the above circumstances some physicians will order four or six grains of calomel; but as it is very unpopular treatment among many of the laity, I seldom employ it, particularly as other things seem to act as well. One word more in regard to the podophylline: If the patient should have two or three dejections a day, the dose must be diminished about one-half. The good effect of the medicine is not seen for several days. After cathartics, alkalies are of next importance—the bicarbonate of soda or potassa, given in a bitter infusion, say cascarilla, chiretta, gentian, or columbo. If the mucous membrane generally is in a lax condition, to the foregoing bitter and alkali you may add a little tincture of myrrh. As it gives a disagreeable taste to the mixture (already disagreeable enough to the young patient), I would omit it from the prescription unless you consider that the patient really requires it.

The bitter is usually intensely disagreeable to children, and sometimes it is a difficult matter to get them to take it regularly; but if the mother understands the importance of the drug she will make the child take it. Tincture of nux vomica or liquor strychniæ are sometimes useful adjuncts to the bitter infusion. They, of course, render it still more bitter. The objection to syrup is obvious. La Bourboule water you will often find useful. This is a natural arsenical water which comes from La Bourboule, Auvergne, France. The arseniates play the most important part in this water, owing to the powerful action which they possess in a small volume and in a proportional large dose, as they are found in the Bourboule water. No other mineral water known contains so

large a proportion. Nowadays it is a favorite remedy with dermatologists; it is indicated in cases of gastro-duodenal catarrh, where you find as a complication obstinate post-nasal and pharyngeal catarrh, and in patients who have the so-called herpetic diathesis, which shows itself by the familiar cutaneous lesions of certain forms of psoriasis, eczema, etc. It should be given warm, after meals, in quantities of one to three or four ounces three times a day, and should not be continued beyond three weeks. Its administration may be resumed after a fortnight —*N. Y. Medical Journal.*

Cerebral Localization and the Psychical Functions.

With regard to the general physiology of the cerebral hemispheres there is little doubt or dispute.

If Hippocrates really taught (what is by no means certain) that the brain is a cold inert gland, of no use but to secrete phlegm and cool the blood, the school founded by him soon promulgated a different doctrine, and one celebrated treatise ("on epilepsy"), attributed by some critics to Hippocrates, but probably of a later date, defines the functions of the cerebrum in a manner which could hardly be improved by any modern, except in the way of amplification and precision. Galen, in the second century of the Christian era, first gave authoritative statement to the doctrine of cerebral physiology, which henceforth prevailed for more than fourteen centuries, and which, with some slight modifications of phraseology, still holds. Galen had observed cases of paralysis from brain disease, the perturbations of intellect which arise from cerebral inflammations, the abolition of consciousness and volition which follows an apoplectic stroke, and the partial losses in the psychical sphere (amnesia, aphasia, etc.), which commonly attend a return to consciousness after apoplexy.

It can hardly be said that much was added to the sum of knowledge of cerebral physiology taught by Galen, till the modern era of experimentation on animals commenced—an era almost dating with the beginning of this century.

If the physician of the olden times obtained important scientific data respecting brain-function from clinical observation, aided now and then by the autopsy, the phenomena of dementia and mental alienation being also of great suggestive value, his modern successor is able to utilize all these

facts, and to greater advantage, since the means of precision have been multiplied, and cerebral physiology has received a powerful reinforcement from comparative neurology.

In accordance with what logicians call the "method of concomitant variations," the physiologist studies the gradations of the brain and nervous system throughout the animal series, and observes like gradations in the powers of mind. The effects of toxic agents and stimuli in altering cerebral function are also noted. By the "method of *difference*, *i. e.*, removal of *parts* or the *whole* of the hemispheres, more important results still are gained. Of course it is assumed, as the basis of these investigations, that throughout the entire animal kingdom homology of structure implies homology of function, and that inferences fairly deduced from carefully conducted experimentations, are legitimate inferences.

The only animals that have survived the entire removal of the cerebral hemispheres, so as to be subjects of experiment, are birds and cold-blooded animals. The general characteristics of animals so mutilated are alike in all. Though excito-motor and sensori-motor action (terms for which we are indebted to Dr. Carpenter) remain, ideo-motor and voluntary action are lost. "How admirable!" says Flourens, who must be credited with the first experiment of this kind, "all the organs of sense remain, and all the perceptions are lost."

With the loss of perception, volition, desire, judgment and memory are lost. Automaticity is at its highest in these animals, the control of whose limbs is little dependent on voluntary acquisition, all the faculties and functions except the most psychical being fully developed in them at birth, and co-ordinated in the sensori-motor and spinal centers; consequently destruction of the cortical centers does not cause that paralysis of movement which is noticed (more or less permanently) in all animals higher in the scale of development. Such, at least, is Ferrier's explanation of that retention of motricity which succeeds the mutilation.

If it were possible in a human being to remove the cerebral hemispheres, and not produce such a shock as to cause immediate death; if the individual could survive such an operation as does the pigeon, we should undoubtedly witness a man reduced to the state of an automaton, without desire, without emotion, without perception, without volition. Nature does, in fact, produce the experiment for us, although the lesions are far more complex than those above described. There is a form of melancholia called by Baillarger, Ball,

Etoc-Demazy, and others, *stupor*, whose material lesions produce suspension (by pressure) of the functions of the cortex, and whose psychological accompaniment is absence more or less complete, as the lesion is more or less general, of all mental manifestation. In pronounced cases the subject is listless, emotionless, and unconscious—remains fixed to one spot (like Flourens' bird), and seems as if deprived of his special senses. The characteristic lesion of this form of mental alienation, according to Etoc-Demazy, is œdema of the convolutions. In marked cases of general paralysis of the insane, intelligence and general motility are extinguished; anæsthesia and analgesia are complete; a dementia of the most absolute and hopeless kind exists. The autopsy always reveals, as the essential lesion, atrophy of the cortical layers of the hemispheres. The living protoplasmic elements are choked out and perish by reason of excessive development and thickening of the meninges and neuroglia. Dementia is acquired idiocy, and is always due to destructive lesions of the cortex; idiocy is due to congenital arrest of development of the cortex.

Hence we see that grave lesions of the encephalon, whether morbid or artificial (the result of experiment), are attended with enfeeblement or disappearance of the most noted psychical qualities, and that motricity also suffers in a marked degree. Whether there be distinct psychical centers (as the phrenologists taught), or whether those portions of the cortex which are peculiarly the seat of mind act as a unit, so that *all* participate in feeling, volition, perception, etc., as Flourens believed, is not absolutely determined. The supposition that the brain "acts as a whole" (so far as the purely psychical operations are concerned), is quite in harmony with the results obtained by a gradual slicing away of the cerebral lobes, as performed by Flourens, Vulpian, and others, on pigeons. It also agrees with the results of lesions, as gunshot wounds, abscesses, etc., in the frontal regions in man, as well as with that integrity of consciousness which often attends complete hemiplegia when one hemisphere is extensively damaged. Goltz, who denies cerebral localizations altogether, believes that every portion of the cortex (those supposed to pertain to motricity, as well as others) is in relation with every function exercised by the hemispheres. His views are thus in harmony with those of Flourens and those of Brown-Sequard.—*Medical Record.*

Treatment of Aggravated Hysteria and Certain Allied Forms of Neurosthenic Disease.

DR. W. S. PLAYFAIR concludes an interesting and quite exhaustive article on this subject as follows:

The principal elements in the systematic treatment of these cases are—

1. The removal of the patient from unhealthy home influences, and placing her at absolute rest.

2. The production of muscular waste and the consequent possibility of assimilating food by what have been called "mechanical tonics;" viz.: prolonged movement and massage of the muscles by a trained shampooer, and muscular contractions produced by electricity.

3. Supplying the waste so produced by regular and excessive feeding, so that the whole system, and the nervous system in particular, shall be nourished in spite of the patient.

On each of these I shall offer one or two brief observations:

1. The removal of the patient from her home surroundings, and her complete isolation in lodgings with only a nurse in attendance, is a matter of paramount importance. This is a point on which I am most anxious to lay stress, since it is the great crux to the patient and her friends; and constant appeals are made to modify this, which I look upon as an absolute *sine qua non.* I attribute much of the success which I have been fortunate enough to obtain in my cases to a rigid adherence to this rule. In almost every instance of failure in the hands of others of which I have heard, some modification in this rule has been agreed to, in deference to the wishes of the friends; as, for example, treating the case in one room by herself in her own house, or in admitting the occasional visits of some relatives or friends. While, however, the patient is to be rigidly secluded, it is incumbent to secure the attendance of a judicious nurse, with sufficient intelligence and education to form an agreeable companion. To shut up a refined and intellectual woman for six weeks with a coarse-minded stupid nurse, can only lead to failure. I have had more difficulty in obtaining suitable nurses, sufficiently firm to ensure the directions being carried out, and yet not over-harsh and unsympathetic, than in any other part of the treatment. Whenever my case is not doing well, I instantly change the nurse—often with the happiest results.

In addition to the isolation, the patient is put at once to bed, to secure absolute rest. In many cases she is already bed-ridden; in others there has been a weary protracted effort, and the complete repose is in itself a great gain and relief.

2. Under the second head comes systematic muscular movement, having for its object the production of tissue waste. This is administered by a trained rubber, and here again is a great practical difficulty. The so-called professional rubbers are in my experience, worse than useless, and I have had to teach *de nova* a sufficient number of strong, muscular young women; and the aptitude for the work I find to be very far from common, since a large proportion of those I have tried have turned out quite unsuited for it. I can not attempt any description of this process. I need only say that it consists in systematic and thorough kneading and movements of the whole muscular system for about three hours daily, the result of which at first is to produce great fatigue, and subsequently a pleasant sense of lassitude. Subsidiary to this is the use of the faradic current for about ten to twenty minutes, twice daily, by which all the muscles are thrown into strong contraction, and the cutaneous circulation is rendered excessively active. The two combined produce a large amount of muscular waste, which is supplied by excessive feeding; and in consequence of the increased assimilation and improved nutrition, we have the enormous gain in weight and size which one sees in these cases, it being quite a common thing for a patient to put on from one to two stones in weight in the course of five to six weeks. The feeding, at regular intervals, constitutes a large part of the nurse's work. At first from three to five ounces of milk are given every few hours; and for the first few days the patient is kept on an exclusive milk diet. By this means dyspeptic symptoms are relieved, and the patient is prepared for the assimilation of other food. This is added by degrees, *pari pasu* with the production of muscular waste by massage, which is commenced on the third or fourth day. By about the tenth day the patient is shampooed for an hour and a half twice daily, and by this time is always able to take an amount of food that would appear almost preposterous, did not one find by experience how perfectly it is assimilated, and how rapidly flesh is put on. It is the usual thing for patients to take, when full diet is reached, in addition to two quarts of milk daily, three full meals, viz.: breakfast, consisting of a plate of porridge and cream, fish or bacon, toast and

tea, coffee and cocoa; a luncheon, at 1 P. M., of fish, cutlets or joints, and a sweet, such as stewed fruit and cream, or a milky pudding; dinner at 7 P. M., consisting of soup, fish, joints, and sweets; and, in addition, a cup of raw meat soup at 7 A. M. and 11 P. M. It is really very rare to find the slightest inconvenience result from this apparently enormous dietary. Should there then be an occasional attack of dyspepsia, it is at once relieved by keeping the patient for four and twenty hours on milk alone.

Such is a brief outline of the method to which I am here to direct your attention. As to the results, I have already published several remarkable illustrative cases, so that it is perhaps not necessary to do much more in this direction. I may say, on looking back at my cases, that the only ones with which I have any reason to be disappointed are those in which the primary selection has been bad; and in the few in which the results were not thoroughly satisfactory, I had doubts as to their suitability for the treatment, which I expressed beforehand. These include one case of chronic ovarian disease, and one of bad anteflexion with fibroid enlargement of the uterus, in both of which the local disease prevented any really beneficial results. In a third I had to stop the treatment in a week, in consequence of cardiac mischief; two others were cases of positive mental disease; and in one case there was true epilepsy. I have no doubt that any positive co-existent organic disease of this kind should be considered a contraindication. In my other cases the results have been all that could be wished, and in many of them the patients have been restored to perfect health after having been helpless bedridden invalids for years; in one case twenty-three without ever putting a foot to the ground, in others sixteen, nine, six, and so on. In two instances my patients were in such a state, that it was found absolutely impossible to move them except when anesthetized; and they were brought to London by the medical men long distances under chloroform, in each case leaving in six weeks perfectly cured.

Antidiphtheritic Inhalations.

Some years ago, Dr. H. Hager recommended a mixture composed of carbolic acid, 10 parts; alcohol, 10; water of ammonia, 12; distilled water, 20, as an excellent inhalation

in catarrhal affections. It was directed to be used thus: A small wide-mouthed bottle was to be filled one-third with the liquid; then a sufficient quantity of cotton was to be introduced to just soak up all the liquid. The bottle was then to be well stopped. In coryza, incipient catarrh, or similar affections, the inhalation through the nostrils of some of the vapor of the compound was found to be of the greatest benefit.

The same author now recommends a still stronger compound, to be made from carbolic acid, 10 parts; oil of turpentine (or oil of eucalyptus), 5 parts; water of ammonia, 12 parts; alcohol, 20 parts. A small quantity of this is to be dropped into a small wide-mouth bottle half filled with cotton or asbestos, and the bottle well stopped. After a few days a little more may be added, until a strong odor is given off when the bottle is opened.

A physician to whom Dr. Hager recommended the use of the compound thinks that it prevents the spread of diphtheria, since in five families, in each of which one case of diphtheria had become developed, its further spread was arrested, apparently through the use of the antiseptic inhalation. In another family, a second child was taken with the disease; but the child could not be coaxed to inhale the vapor. The inhalations should be as full and deep as possible. In some cases of coryza, it has been used with most excellent effects.

Should the odor of oil of turpentine be too offensive to any person, oil of eucalyptus may be substituted for it.—*Mich. Med. News.*

New York Pathological Society.

PRIMARY CARCINOMA OF THE LUNG.

Dr. E. G. Janeway presented a specimen removed from the body of a man fifty-six years of age. The clinical history was peculiar in the fact that patient's mother was the only relative who had had cancer, and that was an epithelial cancer which had been removed from the lip a number of years previous to her death, and the disease did not return. The patient began to complain, about one year before death, of not feeling well, but no marked complaint was made until about six months previous to death. His history was that of progressive failure of strength and flesh,

a very slight febrile movement toward the latter part of his life particularly, 100° F. being the highest, pain in the right side from the beginning, and afterward some shortness of breath upon exertion. Dr. Janeway saw him about seven weeks before his death, and learned that of late the pain in the side had increased in severity. He found flatness over one-half of the right lung, a distinct friction sound over the upper part, with breathing somewhat bronchial and vocal fremitus impaired, and enfeebled and absent respiratory murmur over the lower part. The line of flatness was nearly horizontal. A hypodermic syringe was introduced, and only a very small quantity of bloody serum could be withdrawn. His presumable diagnosis, leaving it for demonstration at another visit, was cancer of the lung, and besides, he thought it possible that a malignant process back of it involved the pleura. At his second visit he found no marked change in the physical signs. Exhaustion was increasing, there was no marked febrile movement, no renal trouble, and, by exclusion, he reached the diagnosis of cancer of the lung, perhaps of primary origin. At that time the patient complained of some disgust for food, but there was no special difficulty in swallowing, although he preferred liquids. He expectorated a slight quantity of mucus, which apparently came entirely from the throat. There was no bloody expectoration. The patient suffered markedly from dyspnœa on very slight exertion, and finally died from exhaustion.

The left side of the chest was normal, excepting a slight bronchitis, and this was the only abnormal condition found at the autopsy.

The specimen presented consisted of two parts: first, the right lung, in which the new growth involved the middle and lower lobes; and second, a mediastinal growth. There was no enlargement of glands above the clavicles. In the lung the neoplasm showed itself in the form of an infiltrated cancer, with nodular outgrowths taking up the pulmonary tissue entirely, especially at the peripheral part. The lung was separated from the diaphragm by a layer of fluid one inch and a half in depth, but the diaphragm was normal except where it was covered by a slight fibrinous deposit. The mediastinal tumor consisted of a mass of enlarged glands at the root of the trachea. In this apparently uniform tumor the new growth had undergone considerable fatty degeneration. In the lung the new growth encircled the bronchi, and

crowded their walls from without inward, so that they were apparently filled. There was a pin head new growth in the lower part of the right lobe of the liver. All the other parts of the body, including the esophagus, were normal.

From the history of the case and the appearance of the specimen, Dr. Janeway believed that the primary growth was in the lung, and that the mediastinal tumor was secondary. Microscopical examination showed alveoli of medium and large size, containing small polygonal epithelial mono- and bi-nucleated cells.

This was the fourth specimen of primary cancer of the lung which he had seen. In one case he made the diagnosis of carcinoma of the lung ten months before death, and at that time there was no other trace of the disease in the body, but at two months before death carcinoma began in the left breast, and at the time of death the latter growth had reached considerable size. In that case there was no mediastinal tumor, but there were secondary nodules in the liver and right lung. The patient's father died of carcinoma of the stomach, and a cousin had lympho-sarcoma of the pleura.

In the third case it had been supposed that the patient had pleurisy, but the autopsy revealed primary colloid carcinoma of the entire lung. The lung and the liver were the only organs involved.

Comparative Value of the Alkaline Bromides.

THE results of the comparative experimental and clinical studies of Cheron and Fawkney on the above-mentioned bromides may be summed up in the following:

I. Sodium bromide controls reflex irritability and at the same time lessens sensibility, thus distinguishing itself from bromide of potassium, which also acts at the same time upon the nervous and muscular system in the double action of the bromide combination and potassium salts. The authors found in relation to the physiological action of bromide of sodium on man: 1. An increase in the secretion of urine. 2. Increase in its solid constituents. 3. Diminution of urea. The dose ranged from one to four grains daily. If a dose of four grains was given daily for a longer space of time an equalization took place, the excretion of urea increased again up to 17 or 19 grammes, and the

amount of solid constituents to above the normal. In consequence of this observation the authors tried bromide of sodium in convulsions, renal deposits, and rheumatism, and with good results.

II. Ammonium bromide in the same dose (1 to 4 grammes), and administered under similar circumstances, gave the following results: 1. Diminution in the quantity of urine. 2. Increase in density, aside from its decrease in quantity. 3. Decrease in its solid constituents. 4. Of urea. This salt acts as a transient excitant resulting from its base, showing however, at the same time, the sedative action of the bromide.

III. Potassium bromide diminishes the excretion of urea, showing, however, but slight diuretic action in daily gramme doses; hence it diminishes the assimilation of matter. It is excreted rapidly by the mucous membranes—similar to the other bromides, the sensibility of which it diminishes, and partly through the kidneys. It acts markedly upon the sensibility of the genital organs.

Therapeutically for the insomnia of nervous women and chlorotic persons, sodium bromide is preferable, since a dose of four to five grammes does not affect either the muscular activity or the intestinal canal, as potassium bromide. If the insomnia depends upon a partial or general congestion of the brain, ammonium bromide is preferable. In epilepsy, potassium bromide has many disadvantages—general torpor, loss of memory, and difficulty of speech. In the dose of four to ten grammes it occasions profuse diarrhea. Of late the three bromides have been given in combination; the advantages in this are as follows: 1. Smaller doses, since the atomic weight of sodium and ammonium is less. 2. More rapid elimination, 3. The depressing action of potassium bromide is less.

In chorea, as a sequel to rheumatism, ammonium bromide is recommended; in chorea, originating from the medulla, sodium bromide; potassium bromide is only indicated in excessive irritation of the muscular tissue.—*The Medical Bulletin.*

Atropine in Mania.—Dr. J. R. Gasquet (*Lond. Pract.*) finds atropine useful in cases which had been previously benefited by hyoscyamin. He recommends the drug on account of its comparative safety and cheapness.—*Journal of Mental Science.*

The Pathology of the Blood in Inflammation

BY JAMES T. DAVIDSON M. D., EDINBURGH.

Senior House-Surgeon, Royal Southern Hospital, Liverpool; late resident Physician, Royal Infirmary, Edinburgh.

THE morphological origin of fibrin formation has been established by Dr. Norris. Of this he has afforded both positive and negative evidence; for he has photographed the invisible corpuscles in the act of becoming fibrin,* and he has also found that a pure filtrate of blood, containing no morphological elements, does not undergo coagulation.† According to Dr. Norris, the cells which become fibrin are the primary lymph cells, the invisible corpuscles (nuclei of the former), and the faintly visible undeveloped red corpuscles (a further development of the second). Partial confirmation of this origin of fibrin formation is adduced by Bizzozero, who ascribes the formation of fibrin to his blood-plates (primary lymph-corpuscle of Norris), and by M. Hayem, who ascribes the same formation to his so-called hæmatoblasts. But both these observers look upon their respective elements rather as determining centers of fibrin formation. That fibrin is present in the inflammatory exudation has been shown by Dr. Burdon-Sanderson, who states that in inflammation of the mesentery the fibrin can be seen on the surface of the membrane.‡ It being established, then, that fibrin is present in inflammatory exudation, and that fibrin is a rearrangement of cells and nuclei of the blood, it follows that in inflammation these fibrin-forming cells and nuclei migrate from the capillaries as well as the leucocytes, and this migration of fibrin-forming elements must be accompanied by an increase of their number in the blood, on the same principle that a migration of leucocytes determines an increase of leucocytes in the blood. The question arises, How are we to know that the fibrin-forming elements are in excess in the blood? Now, there can be little doubt that the hæmatoblasts described by M. Hayem are the granules caused by the disintegration of the undeveloped red corpuscles.‖ No one has seen these granules in the circulating blood, but

* The Physiology and Pathology of the Blood [Norris]. plate xi.

† On the Invisible Corpuscles of Mammalian and Oviparous Blood, &c. The Lancet, Sept. 16th, 1882.

‡ Lumleian Lectures on Inflammation, 1882. Lecture I.

‖ The Physiology and Pathology of the Blood [Norris], section iv.

they have always been observed in shed blood. Dr. Norris has shown that human blood examined on the cold stage of the microscope is free from these granules, while it contains them when examined under the ordinary temperature. This is pretty clear evidence that the granules can be formed after the blood is shed. But Dr. Norris has given positive evidence of their formation, for he has photographed the undeveloped red cells in the act of becoming disintegrated. The evidence afforded by micro-photography can not be gainsaid. What can not be discerned by the unaided microscope can be brought out by photography; therefore this kind of evidence is superior, not only in that it reveals objects just as they really exist, but in that it discloses more of them. The fact that these granules are formed after the blood has been shed does not exclude the possibility that they may also be formed in the circulation under pathological conditions; indeed it seems very probable that this does actually take place sometimes, as evidenced by the enormous quantities of granules present in certain states. Whether, however, these granules be found in or out of the circulation, or, as is more probable, under both conditions, it is evident that they are formed from the undeveloped red corpuscles; hence we may fairly take the number of granules as an index of the number of undeveloped red cells, and, as these latter cells constitute one of the fibrin-forming group of cells, we may roughly estimate the number of fibrin-forming elements in the blood by the number of granules present on the microscopical slide.

In acute large abscesses I have sometimes found the granules present in great abundance; at other times, though in excess of the normal, this excess has not been marked. I found in some cases of acute abscesses, where the excess of granules was marked, that after the abscess was opened the granules diminished in quantity, and after a time again increased. This fact is very interesting, as showing that the increase of the granules in inflammation is determined by two principles. In the first instance the determining cause is the same as that which obtained in the cases of leucocytes, namely, a migration of fibrin-forming elements from the capillaries, and a consequent demand by the blood for more of these elements. It may be objected that as no fibrin is seen in pus, therefore there can be no migration of the above elements. Certainly if we examine pus from an abscess we do not find any fibrin in it, but then what about the pyogenic

membrane? What is the pyogenic membrane? In the first place it may be remembered that Dr. Burdon-Sanderson has shown that inflammation is not "altered nutrition," as was once supposed, but that it is an "arrest of nutrition"; that it is not a constructive, but a destructive process.* This fact would seem to disprove the idea that the pyogenic membrane is a connective tissue formed during, and as a result of, the inflammatory action; and even supposing that it were a connective tissue, its expansion as the abscess increased in size could not be accounted for, as ordinary connective tissue is incapable of the expansion that would take place in a large increasing abscess. Moreover, if the pyogenic membrane were connective tissue, an abscess could not enlarge, for this tissue would prove an effectual barrier to the migration of leucocytes. The explanation must therefore be that the pyogenic membrane is formed by the fibrin-forming elements which have migrated from the bloodvessels, and become conglomerated together on the surface of the abscess; that it is, in fact, the analogue of the layer of fibrin seen on the inflamed mesenteric surface. In the same manner must be explained the formation of membrane on the inflamed pleura and pericardium. The fact that these membranes often become organized does not destroy the assumption that they are formed from altered elements which have migrated from the blood, for the organization may be effected in the same way as Professor Hamilton describes the organization of a sponge inserted in a wound—viz, by the bloodvessels of the serous membrane being pushed into the substance of the fibrin. Thus we can account for the increase of granules seen in the blood during the active period of abscess formation. When the abscess is opened tension is relieved, and migration is at least partially arrested, hence the decrease of granules in the blood at this stage. But the granules increase again, and this second increase I believe accords with the hæmatoblastic crisis of M. Hayem. M. Hayem has found (and his observations have been confirmed by Mr. Reyne) that about the time of the crisis of acute diseases these granules are increased in the blood, and their excess is ascribed to an effort of nature to repair the blood after the decrease is over.† The state of the system after the healing of an acute abscess is somewhat similar to its condition at the crisis of an acute

* Lumleian Lectures, 1882. Lecture 1.

† Archives Generales de Medecine, Janvier, 1880, p. 123, Janvier, 1882. p. 104.

disease. In either case there has been tissue destruction owing to the high temperature, and therefore in either case a reparation of the blood would be profitable. The reparation of the blood would naturally be effected by an increased discharge of blood elements into the circulation, and as these blood elements would consist of undeveloped red cells, and as moreover one of the stages of the undeveloped red cell disintegrates into granules after the blood is shed, therefore we can easily account for the increase of granules seen in the blood at this period. But the first increase of granules I hold to be determined by a different cause altogether—viz., by the migration of fibrin-forming elements—for this increase takes place during the active period of the inflammatory process, and therefore before the repairing influence comes into force. At the beginning of pneumonia, pleurisy, peritonitis, cystitis, laryngitis and bronchitis I have found an increase of the granule, generally a slight one, and a larger increase I have noticed about the time of the subsidence of the disease. These two increases, running into one another and apparently one, I believe to be as distinct from each other as they are in the cases of acute large abscesses. The reason why the two increases appear to be only one is that the first is generally slight, and a decrease of it would not be easily noticed, and this holds good also for some cases of acute large abscesses. But in those cases of acute large abscesses where the first increase is very marked after the knife has been inserted and tension relieved, the decrease of the granules becomes obvious, as does also the secondary increase which takes place later on. There appears to be thus two ways of increase of granules in the blood in acute inflammation—the first being the manifestation of the supply of fibrin-forming elements of the spleen and probably lymphatic glands consequent upon the demand made by the migration of these elements; the second a manifestation of the supply of blood cells by the same organs, consequent upon the demand made by the system to repair the blood after the disease is over.

In conclusion, I do not mean to infer that the leucocytes of the blood are only increased during the active period of inflammation. It is well known that they are increased in leucocythæmia and after severe hemorrhage, and I have found them increased in yet other conditions. What these other conditions are have yet to be ascertained. I have not a sufficient number of cases to justify me in making any

generalization with regard to them, but I claim for the principle enunciated above an important place as an element in the diagnosis of inflammatory lesions, nor do I wish to state that the granules are only increased during the inflammatory process and at the crises of acute diseases. I have elsewhere endeavored to show that causes which interfere with the development of the red cells give rise to an increase of the granules in the blood, the increase in these instances being due, not to an extra supply of cells by the blood-forming organs, but to an arrest of development, whereby a good many cells do not become fully hæmoglobinized red cells, and as a good many of these disintegrate into granules, therefore under these conditions we find the granules in the blood increased in quantity.—*The Lancet.*

Old Lights Newly Snuffed.

BY WILLIAM KENDALL BOWLING, M. D., LL. D.

Professor of Medicine in the Medical Department University of Tennessee, and Ex-President of the American Medical Association.

THE next light of other days which I propose to snuff, is

ALOES.

"Sure to bring on piles." This is the universal verdict of universal ignorance. Says Prof. Cooke, sixty years ago: "A very strange idea prevails that the action of aloes is limited to the lower part of the bowels, and hence it is objected to as likely to produce hemorrhoids. * * * That aloes acts on the rectum alone, is impossible, for it is very soluble in however dry a state it may be; and therefore, must be in a situation to act immediately on being taken into the stomach; that it is brought into a fluid state in the stomach, is evident when it happens to be thrown up a short time after being swallowed. The discharges produced by aloes are also more purely bilious and acrid than those produced, perhaps, by any other medicine, which certainly shows it acts on the upper part of the bowels and the liver."

Prof. Cooke cured dysentery with the "tertiary compound" as well as with ipecac. Both operated on the liver. In quoting Cooke on ipecac, he said dysentery is a form of bilious fever, and is to be treated in every respect as the latter.

We did not know this in 1843, when we published an

article on dysentery in the *Western Medical Journal.* We then thought, never having heard Cooke, nor read his works, that we had made a discovery by accident. In 1832 we had visited a negro boy of Mr. Kelly's, in Logan County, Ky., suffering with dysentery. We gave him four Cooke's pills by mistake, out of the wrong box, and left for him a dozen or so more. When at the next stopping place, many hours after, upon looking through our little portable apothecary-shop we discovered our mistake, and if we should live to be a thousand years old, we still should have a vivid recollection of the horror that seized upon our very soul on the discovery that we had given Kelly's negro Cooke's pills in a bloody flux! The cold sweat of anguish dropped from our forehead as we bent over the druggery of the peripatetic practitioner. We knew we had killed the negro, and should never hear the last of it, and in our agony of soul cursed our negligent inattention. All night at home we agonized over the crushing thought of the antipodes of aloes and dysentery! possibly dreamed of an attempt to soothe an inflamed stomach by potations of molten lead! Next day a burly white man from Kelly's plantation hallooed us to our door, whom we no sooner saw than we knew he had come for a coffin for Kelly's negro, and we looked furtively on each side of his mule for the cornstalk measure of the unfortunate sacrifice to misapplied science! He stutteringly informed us that "he had come arter some more of that truck what cured Jim, as big Joe was down and bandy shank Bill was taking on it." Further on in the same year Judge Broadax, who had a large plantation in the neighborhood, told the author that "Cooke's pills would cure flux." Former office students of the author, now of forty years' experience, repeat the saying of the Judge, that "Cooke's pills will cure flux."

Two years ago at a large dining of distinguished doctors, one asked the author if he had not modified his published views of aloes in dysentery. We said we had so far as to yield the paternity to higher authority, Dr. Cooke, of Transylvania, and secondly, to let most cases cure themselves, but held as a *corps de reserve* ipecac and Cooke's pills, for if aloes delights in the rectum, as you doctors will believe, while you know it doesn't, so also does dysentery concede it as the *fons et arigo mali*, and the two should be permitted to fight it out on that line, if it takes them all summer.

Prof. Fordyce Barker, in his delightful classic on "Puerperal Diseases," says: "In the early days of my professional

life I was engaged to attend a woman in her confinement, who suffered from obstinate constipation. I prescribed for her Dewees' pills, in which aloes is one of the most prominent articles. At the time of her confinement she mentioned that in her former pregnancies she had suffered very much from piles, but that my pills had cured them. If I had known of her hemorrhoidal tendency I should not have given these pills, and I was therefore quite surprised by her statement, as the result seemed so contrary to all I had been taught. From this time I began to experiment as to the effect of aloes in the treatment of hemorrhoids, associated with constipation, in pregnant women. And for many years past I have constantly made use of this drug for their cure, whether the hemorrhoids were the result of constipation or diarrhea."

"If aloes be applied to an ulcer or excoriated surface, it will act as a brisk purgative, producing stools of the same kind as if administered internally."—Warner. "One part tinct. of aloes and two of soap liniment rubbed for five or ten minutes daily over the abdomen of infants of habitual constipation very effectually keep the bowels open."—Merriman. Lady Webster's pill* owes it medical power alone to the aloes in it. Morrison's pill, a patent pill, swallowed and praised by thousands fifty years ago, was principally of aloes. We have read in Williams' "Principles of Medicine," of a man that took an aloetic pill every day for fifty years, and the "pile pill" of Thomas Hawkes Tanner, pure pepsine 4 parts, aloes 1 part, one every day at dinner, is long before Prof. Barker; so here, as everywhere, is the Dutchman's philosophy cropping out:

Whatever is true is not new,
And whatever is new is not true.

Mr. Aaron Stretch, corner of Spruce and Church Streets, of this city, among the oldest of our apothecaries, and without a superior, makes an elegant oleate of aloes. It is of the consistence of a salve. Five grains of it contain 1 ¼ grs. of aloes. This amount made thinner by rubbing it up with a

*As no one pretends now to have a property in this pill, and as it is in universal use, and has no superior, we give the formula:

R. Aloes Opt.....dr. iij.
Myrrh.....
Rhub.....aa dr. j.
Syr. Absinth. q. s. Ms. S. div. in pilul. No. LX.
S. One at night.

little lard, to be applied by gentle friction to the abdomen of costive children is good. Or to constipated children of a larger growth, sick and tired of having their stomachs made storehouses for the outlandish devilments of "chemists," it is good. Squibbs has lately shown us that medical substances, which, as ordinarily combined, find a permanent resistance in the epidermis, as oleates, readily permeate it.

I quote this remarkable passage from Chapman's therapeutics 52 years ago: "I have lately heard that it is the practice of an eminent surgeon of London to employ aloes for the cure of hemorrhoids. Whether this proceeds from a vulgar affectation of singularity, or that the article really does good, on a principle that a remedy is sometimes found in a cause of a disease, I shall not attempt to decide." Vulgar affectation of singularity! Alas! what is experience? The celebrated Vogel, who trusted nothing else, prescribes a roasted toad as a specific for gout, and a roasted swallow as a prophylactic against angina!—*Southern Practitioner.*

Microscopy.

Binocular Vision in the Study of the Diatomaceæ.

Mr. F. Kitton, at the last meeting of the Royal Microscopical Society, read a paper on the above subject. From the *Royal Microscopical Journal* for February, 1883, we copy a portion of the discussion upon it:

"Mr. Beck said, that with reference to the opening remarks of the author on the value of binocular over monocular vision, he could fully bear out all that had been said. A valuable means of convincing any one who was skeptical on the subject was to be found in a slide of *Aulacodiscus;* and he remembered that when his brother Richard showed this diatom to Mr. Tuffen West for the first time under the binocular, that distinguished draughtsman looked at it for some time in silence, and then jumping up, exclaimed: 'All the drawings of diatomaceæ which I have done will have to be done over again!'

"Dr. Wallich said he could fully confirm the statement that nothing showed diatoms so well as the binocular. Indeed, from a study of these objects, extending over many years, he could say that it was utterly impossible to see

them in any other way. In one of the drawings of *Hydrosira* he observed that Mr. Kitton had not noted the unsymmetrical formation, consisting of a little dot, which was generally surrounded by a slight ridge on one side only. It occurred in *Hydrosira* and many of the discoidal forms, and though often seen, he had never yet been able to detect what this peculiar structure was. It would be of advantage if some one would set to work to determine it. It seemed to him to have something to do with the communication between adjacent frustules.

"Mr. Crisp said that Mr. Kitton had proved conclusively the superiority of the binocular, in that he had shown the true form of diatoms, which had previously been misinterpreted by most experienced observers after observation with the monocular.

"Mr. Stewart said that there were still some persons who appeared to think that the binocular was a mere toy. It was, however, of really great importance, especially when working on an exceedingly transparent object, where the inner membranes could be distinctly separated from those above them; or, in tracing out fine nerve fibres, which, passing over or under each other, could be resolved in a way which was entirely impossible by any other means.

"Mr. Beck believed they were only as yet in the infancy of the binocular microscope; and he looked forward to the time when much more attention would be paid to its construction, and particularly to the question of ascertaining the best point at which the prism should be placed to get the full field, without adventitious aid in the way of illuminators, by which improved results would, no doubt, be obtained. He believed that the binocular was the microscope which would be used in the future.

"Dr. Gibbes said he could corroborate all that had been said on the subject of the binocular, and especially its value when used with a $\frac{1}{12}$ th. inch in examining those very minute parasites to which his attention had been given, as it enabled him at once to see whether they were outside or inside the tissue."

We are in receipt of the *Journal of the Royal Microscopical Society* for February. This is a bi-monthly journal, and is promptly on hand every second month. It varies in size, but never contains less than 144 pages. It is supported by annual fees of Fellows, which are levied for the purpose. Fellows, consequently, are supplied with it without further

cost. The price to non-Fellows or subscribers is 5*s*. per number, or 30*s*. a year. To subscribers in the United States the postage is extra.

Gleanings.

Diabetic Coma.—Drs. Foster and Saundby record a carefully studied case of diabetic coma in the *Burmingham Medical Review*, January, 1883. They have summarized their conclusions as follows: 1. Diabetic coma is especially liable to supervene in acute cases in young persons. 2. Diabetic patients and their friends should be warned of the danger of constipation, muscular exertion, nervous excitement, and cold, as probably predisposing causes of death by coma. 3. The discovery of the ferric chloride reaction in the urine should be taken as a warning to look out for the premonitory symptoms of coma. 4. Deep respiration, rapid pulse, and abdominal pain are the earliest premonitory signs of this condition. 5. Cyanosis may be absent, in spite of the dyspnœa, and may appear only just before death. 6. Convulsive seizures are not an uncommon occurrence just before death. 7. Diabetic coma, with all its classical symptoms, occurs independently of an excess of fat in the blood, and the pathological value of lipæmia, when present, is yet undetermined. 8. The toxæmic theory, or poisoning by acetone or some nearly allied substance or substances, affords the best explanation of this remarkable group of symptoms.

Poisoning by Ten Grains of Morphia Treated Successfully with Atropia.—A woman having swallowed ten grains of morphia was found one hour later completely unconscious, with feeble and irregular, sometimes gasping, respiration, face flushed and cyanotic, eyes injected, pupils moderately contracted, pulse 100. After a few irregular inspirations there was an interval in which breathing entirely stopped for ten or fifteen seconds. A hypodermic injection of atropia (one-thirty-fifth of a grain) was given by Dr. E. Stuver (who reports the case in the *Medical News*), and an hour later another was given of one-fortieth of a grain. After each injection an improvement in breathing and pulse took place, but unconsciousness did not leave her until another hour had passed. With the exception of a sick headache

the next morning, she recovered rapidly and without further unfavorable symptoms. The patient was in the seventh month of pregnancy, but did not abort. This case, while it shows that atropia is a useful antidote to morphia, also emphasizes the view that the size of the pupil does not indicate the gravity of the toxic effect of the morphia.

Caffeine in Heart-Disease.—Caffeine has been largely employed as a diuretic, but it has been little used for its action on the heart. Lepine asserts that it is capable of producing the same effects as digitalis, over which, in some cases, it has decided advantages. It is, however, necessary to employ it in large doses, from sixty centigrammes to two grammes per day. The effect is more rapid than that of digitalis; in less than twenty-four hours the pulse will fall from 160 to 100 or 80 per minute, and the force of the heart's contractions is increased in just the same way as with digitalis. Caffeine is, however, better borne, and seems to be eliminated more rapidly than digitalis. Among its inconveniences, however, are the occasional production of insomnia and a nervous condition which renders it necessary to suspend it. M. Lepine has never given it for more than ten days. Another objection is its very high price. A Paris physician, M. Huchard, has also praised it highly in the same cases, and in similar doses, especially for its diuretic effect. Coffee is, it may be noted, an old remedy. Zwinger recommended it in 1725 for dropsy, and Honore in 1846 for albuminuria.—*Lancet.*

Giacomini's Process of Preserving Brains.—The fresh brain, in its membranes, is placed in a saturated solution of chloride of zinc, in which it floats, and must be turned over two or three times a day. After forty-eight hours, the membranes must be removed, without taking the organ out of the fluid. Allow it to remain in this fluid until it ceases to absorb, as shown by its remaining at the same level, and not sinking; then remove it, and plunge it in alcohol of commerce, where it must remain for a period of not less than twelve days, during which time the spirit should be changed two or three times. When removed from the alcohol, it is to be placed in glycerine of commerce, to which one per cent. of carbolic acid may be added. At first it floats in the glycerine, but, as the spirit evaporates, and the glycerine penetrates it, it gradually sinks to the level of the

surface of the fluid, when it may be removed, put aside to dry for a few days, and lastly, coated with several layers of gum-elastic varnish, or marine glue diluted with a little alcohol.—*British Medical College.*

The Abortive Treatment of Gonorrhœa.—Dr. Watson Cheyne recommends, in the *London Lancet*, a combination of iodoform, eucalyptus oil and cocoa butter, for the cure of gonorrhœa. He makes this combination into rods or solid cylinders four to five inches long, having a thickness of a No. 10 catheter, so that each rod contains five grains of iodoform, ten minims of eucalyptus oil, and twenty-five grains of cocoa butter.

These rods are employed only during the inflammatory state, or within the first seven or eight days of the disease. When used, one of these rods is to be dipped in eucalyptus oil and introduced into the urethra. A pad of boracic lint is then to be applied over the orifices, and over this a large piece of gutta percha tissue; the whole dressing is to be kept in position by straps. In four or five hours the melting of the cocoa butter allows the iodoform and eucalyptus oil to spread over the inflamed surface. Another rod may then be inserted for a similar time. After this a suitable injection may be employed. The iodoform is thought to act beneficially by reason of its germicide properties.

Removal of Goitre, with a Fatal Result.—In the *Deutsche Med. Zeitung*, No. 42, an abstract of a case of extirpation of a goitre, performed by Von Riedel, is given, which is unusual in the fact that symptoms supposed to be due to some affection of the vagus occurred soon after the operation. Aphonia, with rapid pulse and dyspnœa, set in within two hours after the operation. Tracheotomy failed to relieve the dyspnœa. Four days later pneumonia was detected, and the patient succumbed. At the autopsy the recurrent nerves were found to be embedded in blood-clot; there was also commencing suppurative inflammation of the mediastinum and lobular pneumonia. Von Riedel puts the vagus symptoms down to the use of a two-per-cent. solution of carbolic acid with which the wound was washed out. He has seen one other similar case. The facts of the case are interesting, but we think the explanation not free from objections.—*Medical Times and Gazette.*

Renal Surgery.—In its annual retrospect of the advances made in medicine during the past year, *The Medical Press*, December 27, 1882, makes the following comments on this subject: Several operations for removal of renal calculi, and for relief of symptoms set up by presence of pus in the organ, have been recorded, the majority eventuating successfully. Nephro-lithotomy, as performed by Mr. Morris, has been repeated by Mr. Beck, who points out that favorable subjects for the operation should not be too fat, and that when pus in the urine affords indication that the stone in the kidney is setting up irritation, then the time for operative interference has arrived. Mr. Beck repeats what Mr. Morris pointed out in respect to the bleeding from the incised kidney. Though seemingly very profuse for a moment, it is at once and permanently controlled by the pressure of a sponge, and does not subsequently seem to cause embarrassment.

From the numerous cases reported before societies and in journals, in which grave operations on the kidney have been attended with success, it is evident that an increasing feeling of hope as to the consequence of such interference is growing up among surgeons, who will now proceed to cut into or remove a kidney with much less hesitation than would have been shown a few years ago. The most hopeless cases of this kind that are met with now are those extreme examples of degeneration in which the kidney is little more than a sac containing pus, and which yield the least likely of all probabilities of successful removal of the mass. A very considerable number of cases in which operative treatment for removal or evacuation of diseased kidneys has succeeded have been reported during the year, and it is a justifiable conclusion, from consideration of these proceedings, that a much more evident willingness to attempt to give relief to patients by such measures is exhibited now than formerly. In fact, this may be said of surgical operations generally. Many which are now by no means uncommon would have been promptly rejected not very long ago, as involving an amount of risk not justified by the probabilities of success or even of relief to distressing symptoms.

The Advantages of a Dry Local Treatment in Otorrhœal Diseases.—One of the greatest hindrances to cure in an ear disease accompanied by otorrhœa, whether the disease be due to inflammation in the auditory canal or mid-

dle ear, is the presence of granulations and polypoid growths. Yet one of the oldest forms of treatment of otorrhœal disease has been by copious syringing and instillation of various fluid medicines. Hence, in such treatment of this class of aural diseases, moisture has been repeatedly applied to, and kept in the ear, a naturally heated locality. Now, as heat and moisture tend to promote granulations and keep up a discharge, it is very apparent that a moist treatment of otorrhœa in many instances has a tendency to keep up rather than to check the morbid discharge from the ear.

On these grounds, therefore, Dr. Chas. H. Burnett, in a paper with the above title, in the *American Journal of the Medical Sciences* for January, 1883, holds that the syringe and all forms of drops should be omitted from the home treatment by the patient in cases of otorrhœa. The most the patient should be directed to do is to dry his ear according to its need, by running into the canal and down to the fundus a twisted pencil of absorbent cotton. The surgeon is to use the syringe only when it is absolutely necessary to remove by it the matter from the ear, and thus prepare the organ for the application of medication by his hand. This latter part of the treatment should consist in the blowing of powders into the ear. Of these, Dr. Burnett recommends one prepared by triturating equal parts of tincture of Calendula officinalis with boracic acid (gr. to minim), allowing evaporation, then rubbing one part of the thus calendulated boracic acid with one or two parts of pure boracic acid. Alum should not be used, on account of its tendency to produce furuncles. Comparative tables are given, which show that by the dry method of treatment the average duration of treatment may be shortened from 212 days under the old plan, to 34 days by the dry method.

Rules for Examination of Urine.—During a private lecture on the pathology of renal diseases, Dr. Formad gave the following practical points as "rules for examination of the urine:"—

1. Sediment in the urine has no significance unless deposited within twenty-four hours.

2. Albumen in the urine does not indicate kidney disease unless accompanied by tube-casts. The most fatal form of Bright's disease—contracted kidney—has little or no albumen.

3. Every white crystal in urine, regardless of shape, is a

phosphate, except the oxalate of lime, which has its own peculiar form, urine alkaline.

4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.

5. Mucus, casts, pus, and epithelium signify disease of the bladder (cystitis) or of other parts of the urinary tract, as determined by variety of epithelium.

6. The urine from females can often be differentiated from the urine of the male, by finding in it the tesselated epithelium of the vagina.

7. Hyaline casts (narrow), blood, and epithelial casts signify acute catarrhal nephritis. Much albumen.

8. Broad hyaline casts and epithelial dark granular and oil casts signify chronic catarrhal nephritis. At first, albumen; later, less.

9. Hyaline and pale granular casts and little or no albumen signify interstitial nephritis.

10. Broader casts are worse than narrow casts, as far as diagnosis is concerned, for the former signify a chronic disease.

11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts or devour them entirely in a short time.

12. Uric acid in the urine may, in Trommer's test for sugar, form a protoxide of copper, thus often deceiving the examiner in the belief that he has discovered sugar. Thus, when urine shows only a trace of sugar, other methods of examination, besides the Trommer's, must be used—preferably the lead test.

13. The microscope gives us better ideas of the exact condition of affairs in the examination of urine, than the various chemical tests. Therefore the time has come when every true physician should know how to handle a microscope.—*Louisville Medical News.*

THE ANTISEPTIC AND PHYSIOLOGICAL ACTION OF RESORCIN.—From some experiments made by Dr. W. B. Platt (*American Journal of the Medical Sciences*, January, 1883), it appears, taking the minimum time in each series, that bacteria developed in 20 c. c. of urine exposed to favorable conditions, and that 0. 050 grm. of resorcin has no appreciable influence, bacteria developing within eighteen hours.

Twice that quantity (0.103) kept urine free from bacteria twenty-four hours, six hours longer; while 0.150 deterred

their development to four days, urine without any addition showing bacteria within eighteen hours.

If urine be boiled, organisms are found usually considerably later, forty-six to sixty-five hours.

0.050 gramme of carbolic acid hinders development of other living organisms (large enough to be detected by a power of 550 diameters) in boiled urine at least twelve days, bacteria eighteen days, the usual bacillus not developing at all. While 0.150 of resorcin (about two and a half grains) hinders development of bacteria four days, one-third that amount of carbolic acid preserves a similar amount of urine free from organic life, under similar conditions, three times as long.

Experiments made to determine the physiological action of resorcin, showed that in several warm-blooded animals it caused—1. Restlessness and trembling. 2. Rapid respiration very early in rabbits. Early and very marked after a lethal dose in one dog, later after a lesser, but fatal dose, in another. Not marked after non-lethal doses. 3. Staggering, unsteady gait, loss of co-ordination, especially in hind limbs, present early in all the animals excepting one rabbit where a small dose was exhibited. 4. Twitching of muscles, especially of hind limbs, constant in all. 5. Clonic contraction of nearly all flexors and extensors of body, more especially of those attached to the pelvis and shoulder. 6. In the animals that died, the imitation of the natural running or hopping movements before death, as the animal lay upon its side, was striking.

Puerperal Fever.—In the *Edinburgh Medical Journal* for October is contained an interesting and short paper by Mr. John Lowe, on "Puerperal Fever; its Treatment and Prevention," in which occurs the following judicious expression of views in regard to treatment:

"I am strongly of opinion that by early and repeated aseptic intra-uterine injections, a rapidly acting cholagogue, washing out the bladder, if necessary, with some aseptic solution, and the timely and liberal use of stimulants, will avert death in many instances. It is no use giving the nurse instructions to wash out the uterus; we must do so ourselves by means of a long tube in the uterine cavity itself. Ammonia and brandy I regard as the medicines for the disease; indeed, when food is refused, brandy is not only most grateful to the patient, but is peculiarly well adapted to supply

the place of ordinary food, and no amount of fever or other symptom contraindicates stimulation when changes so destructive to the vital fluids and tissues of the body are in terribly rapid progress. To give aconite or veratrum viride in such cases is, in my opinion, as unscientific as it is useless; and yet these remedies have been vaunted and are actually used by men of undoubted ability and eminence. To get rid of a fermentative poison from the blood, we must adopt some such practice as I have indicated, and not stop to theorize about the physics of the circulation. We must, in other words, support vitality and eradicate the poison. That salicylates and sulpho-carbolates taken internally do not rectify the turbid urine in puerperal fever I am convinced from experience; and I would strongly urge that all depressant remedies are both hurtful and dangerous."

The use of carbolic spray, and irrigation of the uterus and vagina with carbolic solution, immediately after labor, are considered important means for the prevention of puerperal septic poisoning.—*Am. Med. Digest.*

A New Operation for Spina Bifida.—At a recent meeting of the Leeds Medico-Chirurgical Society (*British Medical Journal*, December 30, 1882), Mr. Robson showed a child six weeks old, upon whom, when six days old, he had performed a new operation for spina bifida. The redundant parts removed by the operation were also shown. After the removal of these parts and after stitching up the arachnoid over the spinal canal, periosteum from a rabbit was inserted between the meninges and the skin so as to cover the gap in the bones. The wound had perfectly healed; the skin over the lumbar region was quite level; there seemed to be no tenderness on pressure: the child looked strong and healthy. The sac was found to be of the size and shape of half a swan's egg; the wall consisting of true skin and subcutaneous tissue lined by serous membrane. At one point the sac was very thin and transparent, appearing to consist only of the serous membrane covered by a thin layer of epidermis, when fresh minute blood-vessels could be seen to ramify over it. Mr. Robson drew attention to the following points: 1, the operation was performed with full antiseptic precautions, eucalyptus air being used instead of carbolic spray; 2, the meninges were closed by uniting the serous surfaces, as in peritoneal surgery; 3, the transplantation of living periosteum and its continued vitality; it had not yet,

however, formed new bone, but already the covering of the canal had a greater than mere skin-firmness; 4, the entire absence of bad symptoms in the child, operated upon at so early an age, was noticed.

Large Doses of Alcohol in Scarlatina.—At the last meeting of the Academy of Medicine of Cincinnati, O., Dr. Giles Mitchell reported forty-three consecutive cases of scarlatina treated with large doses of alcohol, without a single death. The quantity of alcohol given in some cases was enormous. To a patient two years old a half-ounce of whisky was given every hour for a number of days, without having any other than a favorable effect, and without producing any symptoms of alcoholic intoxication. The doctor claimed that when this treatment was instituted, the disease had always pursued a more favorable course, hyperpyrexia being neither so frequent nor so prolonged, nor were renal complications so likely to ensue. In case the kidneys became affected, the alcohol was still pushed, and the complication fully relieved. If the temperature was high before the administration of the remedy, it would rapidly fall below the danger-line after the treatment was instituted. The report of Dr. Mitchell called forth a lengthy discussion from the members of the Academy. Prof. Whittaker thought that the favorable influence exerted by the remedy was due to its antimycotic properties. He had no doubt that the brilliant results obtained were due to the antiseptic and parasiticidal properties of alcohol, as manifested in these cases by the destruction of the germ of scarlatina. Prof. Reamy was a firm believer in the efficacy of large doses of alcohol. He attributed its good effects rather to its influence in preventing tissue-metamorphosis, to its value as a food, and to its antipyretic action.—*Philadelphia Medical Times.*

Histological Changes in the Skin in Measles and Scarlet Fever.—Neumann states that the principal changes in the skin in these diseases are met with in the glands and blood-vessels. The latter are dilated and surrounded by a cell prolaferation which even accompanies the capillary loops in the papillæ. Similar changes are observed in the sweat-glands, although the surrounding cutaneous tissues are free from the infiltration. About the sebaceous glands the new growth is deposited chiefly at the under part. It never is found within the walls of the glands. The arrector pili muscle is always infiltrated. In scarlet fever the cutis and

epidermis also participate in the inflammatory process. Clinically, it is important to remember that this round cell exudation extends even into the horny layer of the epithelium. The epidermis presents numerous cracks and fissures which seem to be filled with round cells and blood corpuscles. In like manner the cuticular fibres are compressed by the new growth, and in places are dislodged by aneurismal dilatations of the blood-vessels. The contagious properties of the epithelial scales are due, the author believes, to the above-mentioned changes in the epidermis. — *Wiener Med. Wochenschr.*, November 18, 1882.

Atropia for Earache.—The most effectual treatment, and the one which has stood the test for years, says Dr. A. D. Williams, in the *Chemist's and Druggist's Bulletin*, is the local application of a solution of the sulphate of atropia. Not a single case but has yielded at once. The solution is to be simply dropped into the painful ear and allowed to remain there from ten to fifteen minutes. Then it is made to run out by turning the head over, then being wiped with a dry rag. The solution may be warmed to prevent shock. From three to five drops should be used at a time. The strength of the solution must be varied according to age of the child. Under three years, one grain to the ounce, and over ten years, four grains to the ounce of water. In grown persons almost any strength may be used. All ages will bear a stronger solution in the ear than in the eye. The application should be repeated as often as may be necessary. Usually a few applications will stop the pain. In acute suppurative inflammation of the middle ear, and acute inflammation of the external meatus, atropia will only slightly palliate the suffering, but in the recurring nocturnal earaches of children it is practically a specific.—*Medical Record.*

The Maternite Hosiptal in Paris.—The most successful results ever attained in the Maternite Hospital, Paris (a mortality of only three-quarters of one per cent.) have been reached in the new pavilion, of which M. Tarnier says:

Each patient there has a separate room, entered from without, so that a nurse can only pass from one to another by going outside into the open air. The furniture is of japanned iron; the floors, walls, and ceilings are of impermeable concrete. The mattresses and pillows are stuffed with cut chaff, which is burnt after use in every single case. For the McIntosh sheet is substituted one of brown paper, made

impermeable by pitch; this is burnt after use. For the washing of the genitals weak solutions of bichloride of mercury are employed, as being the best and most powerful germicide.

The same enthusiastic accoucher has invented a sort of incubator in which babies of an age heretofore considered nonviable are placed. This machine consists of two compartments, the lower containing hot water to furnish the heat, the upper for the reception of the child, where he is enveloped in cotton and under a glass cover. The results are said to be very encouraging.—*Boston Medical and Surgical Journal.*

Blenorrhagic Pleurisy.—Several years ago Dr. See observed a case of gonorrhœal rheumatism, complicated by pleurisy. To his mind the pleurisy was evidently due to the venereal disease, since the two inflammations, arthritic and pleuritic, commenced at the same time and without any previous exposure on the part of the patient. Quite recently he saw another instance of this rare complication of gonorrhœa (*Journal de Medecine*, December, 1882). This was the case of a young man twenty-five years of age, who had contracted a gonorrhœa some three months previously. He was suddenly taken with chills, followed by pains in his side, fever and dyspnœa. Pressure upon the sides of the thorax induced the most acute pain. Upon his admission into the hospital, he showed evident signs of pleuritic effusion with extreme dyspnœa. He was not benefited by hypodermics of morphia. A hypodermic of nitrate of pilocarpine, however, gave an excellent result. Dr. See insists that the thoracic pain and the general instead of the local disorder is sufficient to establish a diagnosis of true gonorrhœal pleurisy.

Important for Smokers.—In the chemical laboratory of the Board of Health, in Bremen, Dr. Kissling (*Deutsche Medizinal Zeit.* Aug. 7, 1882), has made investigations in regard to the danger of smoking cigars. It would lead us too far were we to publish his careful experiments and analyses in detail, but we will give our readers the results of the same: As grave poisons he found carbonoxyd, sulphuretted hydrogen, prussic acid, picrolin bases and nicotin.

The first three can not come into consideration, as they are too volatile, and present in too small quantities. Regarding the nicotin, however, he found that a very small

trace only is burned up by the smoke, but that the stump becomes the richer in this narcotic substance, the larger the cigar is, the more the end is chewed, the shorter the stump gets, and the oftener the cigar is lit. Conclusion: To avoid all danger, smoke a cigar not too thick and long, don't chew the end, smoke only two-thirds of every cigar, and throw it away as soon as relighting becomes necessary. Never smoke a cigar after it has once gone out. *Cigarettes are the least injurious* of all tobacco smoking.—*Medical and Surgical Reporter.*

Removal of a Bean Piecemeal from the Ear.—Dr. T. Y. Sutphen, of Newark, N. J., sends us an account of a case illustrating the difficulties and accidents in removing foreign bodies from the external auditory meatus. A boy, eight years old, was brought to Dr. S. with a common white bean in his ear, which he had placed there two weeks before. Attempts had been made by others to remove the body by the use of the syringe and instruments. These had only resulted in injuring the canal, which was swollen so as to hide the bean from sight. There was muco-purulent discharge from the ear. The boy was etherized, and an attempt was made to remove the body with a syringe, but it failed. The ear was then syringed with warm water, for four days, which reduced the swelling somewhat. The bean could be seen, and was immovably impacted. With a lance-shaped paracentesis needle, the bean was broken up, with the help of a bent probe, and removed.

The Treatment of Intussusception.—In the September number of the *New York Medical Journal and Obstetrical Review*, Dr. W. R. Gillette, Physician to Bellevue Hospital, relates a case of intussusception in a child nine months old, relieved by injections of water, the administration of chloroform, by inhalation, and manipulation of the tumor felt through the abdominal wall. This, he states, is the third case of intussusception in infants which he has seen, and which he has been able to reduce by these means. He thinks that these cases, from the philosophy of their condition, and the necessary measures for relief, are best managed in the way indicated. In two other instances, in which he saw and advised this treatment, reduction was utterly impossible under the other methods tried. The children in each of these cases were held while struggling, and the injections forced into them against all voluntary

and involuntary efforts which they could make. He deems the administration of chloroform almost absolutely necessary in these cases.

Lymphadenitis of the Conjunctivæ.—Dr. W. Goldzieher, of Buda-Pesth, Hungary, recently removed from the conjunctival cul-de-sac of a fourteen-year-old boy a hard, painless tumor the size of a filbert. On the surface of this growth were to be seen yellowish, cheesy-looking plaques, which apparently penetrated into the depth of the tumor; whilst in other places small, round grayish nodules could be made out through the translucent mucous lining. There was a family history of scrofula. Dr. G. first thought that it was a case of tuberculosis of the conjunctiva, but the microscopic examination of the specimen showed that it was an enlarged lymphatic gland. The existence of lymph-follicles in the normal conjunctiva, though vouched for by some microscopists, has been strenuously denied by others. The present case would seem to afford corroborative evidence of the real presence of these conjunctival follicles.—*Centralblatt fur Praktische Augenheilkunde.*

Therapeutics of Anemia.—In his Gulstonian Lectures upon Anemia, Dr. Sidney Coupland showed that iron acted with great rapidity in enriching the blood with corpuscles. He has found arsenic in some instances more efficacious than iron, and as a hematinic ranks it next to that metal. Phosphorus had been given with benefit to a case of idiopathic anemia. Quinia, strychnia, and the mineral acids were of value as aids to iron. Manganese is a dead failure. Oxygen increases appetite and assimilation, but it is not hematinic directly. Transfusion, as a last resort, must be used in pernicious anemia before the patient is very far gone. He thought well of the use of defibrinated blood by the rectum systematically.—*Louisville Med. News.*

Treatment of Still-born Infants.—The *London Medical Record* gives an abstract of a report by Dr. Ruzanovsky on this subject. Dr. R. tried all the usual methods in a case of asphyxia neonatoria unsuccessfully, when he resolved to try hot water as lately recommended by Dr. Le Bon. The infant was immersed in very warm water, leaving free the head alone. One minute afterwards (eighty-seven minutes after birth) the first inspiration was made and the child's life saved.—*Obstet. Gaz.*

Book Notices.

EXPERIMENTAL PHARMACOLOGY. A HAND-BOOK OF METHODS FOR STUDYING THE PHYSIOLOGICAL ACTIONS OF DRUGS. By L. Herrmann, Professor of Physiology in the University of Zurich. Translated with the author's permission, with notes and additions by Robert Meade Smith, M. D., Demonstrator of Physiology in the University of Pennsylvania. With 32 illustrations on wood. 12mo. Pp. 201. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. 1883. Price, $1.50.

"Pharmacology, in its widest scope, embraces the study of drugs from all possible points of view, and the information thereby acquired may be useful under the most diverse conditions: to the physician, to enable the recognition and proper treatment of cases of poisoning, or to permit of the use of drugs for therapeutic purposes; to the public, to permit the avoidance of noxious substances; to the physiologist and pathologist, to enable the application of information derived from the study of the action of poisons, to the advancement of their sciences. The study of pharmacology can therefore be limited according as one or more of these points of view occupy the first place in the mind of the investigator. The public desires to know only what substances are poisonous, that they may be avoided, while their *modus operandi* is a matter of indifference. Those poisons which are useful at the bedside will prove most interesting to clinicians."

This manual is for the purpose of instructing those who are engaged in the study of the physiological action of drugs, the *modus operandi* of proceeding. It teaches what instruments are necessary, and how to make use of them. It is just the work for one engaged in original research, and will be found very valuable to all physicians; for there is in it a large amount of physiological information that is not to be found in ordinary works on physiology. The translator has added very considerably to the work—probably a third.

At the outset of the work, the author and translator describe a number of curious physiological instruments that the investigator will need in his investigations, and give cuts of some of them. It is described how blood may be drawn from a vessel without exposure to air; how alterations upon

the red corpuscles of the blood may be studied, also upon the white corpuscles; how to make examinations of muscular irritability, etc. After explaining many such investigations, too many for our space to recount, the classes of animals are described upon which it is best to make particular examinations. In making a selection of animals upon which to observe the actions of a particular drug, a number of conditions must be observed in determining the kind. Frogs may be the best for some purposes, rabbits for other purposes, etc.

The little work is worth the study of all students of physiology.

THE SYSTEMATIC TREATMENT OF NERVE PROSTRATION AND HYSTERIA. By W. S. Playfair, M. D., F. R. C. P., Professor of Obstetric Medicine in King's College, etc. 12mo. Pp. 111. 1883. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price $1.00.

A work by such a distinguished medical writer as Dr. Playfair needs no commendatory notice. It is enough to know that he is the author of a work to feel confident that it is one of value. A man of his learning, great experience, and extensive observation, could not be expected to put forth an inferior work.

The work before us is very small in size, as will be noticed, but it treats upon a very important subject, and notwithstanding its smallness treats it very exhaustively. Said a patient, as quoted by Dr. Playfair:

> "Ah! then confess there is yet to find
> The remedy for suffering of this kind.
> Do you not think a cure for every ill
> That is not mortal there may yet be still,
> Though 'tis not found by means of drug or pill?
> Lend me your books; by study try will I
> To find the undiscovered remedy."

And we will here say that Dr. Playfair is of the opinion that he has been able to unfold, in these pages, a method of cure that will undoubtedly succeed in many cases which physicians have been too much in the habit of abandoning in despair.

What more difficult cases to treat than those of Nerve Prostration and Hysteria? Who, then, will not welcome such a work as Dr. P's, which promises relief? The work only costs a dollar, and surely the demand for it will be very great.

ILLUSTRATED CATALOGUE OF SURGICAL INSTRUMENTS AND APPLIANCES, GALVANIC BATTERIES, TRUSSES, SUPPORTERS, ETC. 1883.

The above is a catalogue of 194 pages by Spencer & Crocker, Surgical and Dental Instrument Makers and Sellers, of 117—121 W. Fifth Street of this city. The catalogue contains cuts and descriptions, with prices attached, of all instruments used by surgeons, physicians, and dentists. Messrs. C. & S. keep on hand all new inventions and novelties. Their catalogue is exceedingly valuable for reference.

Editorial.

NOTICE.—We hope our friends will not forget that the MEDICAL NEWS has entered upon another year, and that the subscription price for the same is now due. The MEDICAL NEWS is the cheapest medical monthly published in this country; and containing, as it does, each month, so large an amount of valuable reading matter, it should be promptly paid for. It aids the practitioner in practicing his profession, furnishing him the results of the researches of investigators, and of the observations and experiences of the most distinguished medical men of the world, thus better qualifying him for the discharge of his duties, making him a more skillful physician, and causing his services to be more sought for.

The earlier in the year the subscription price is remitted to us, the more valuable it is to us. We hope that all who are indebted to us will remit soon.

We regret to say that quite a number are indebted to us to a large amount. They give no attention to bills sent them; dunning letters, etc. We fear that if some of these do not soon settle up, we will be under the necessity of adopting some method to secure payment that will be exceedingly disagreeable to them. There is such a thing, so we have been informed, as "patience ceasing to be a virtue."

REJECTED MEDICAL COLLEGES.—The Illinois Board of Health, from which all practitioners of medicine in the limits of the State of Illinois must obtain licenses to practice, has refused to recognize the diplomas of the following colleges.

American Eclectic Medical College, Cincinnati, O.; Amer-

ican Health College, Cincinnati, O.; American University, Philadelphia, Pa.; College of Physicians and Surgeons, Buffalo, N. Y.; College of Physicians and Surgeons, Joplin, Mo.; Edinburg University, Chicago, St. Louis and elsewhere; Hygeo-Therapeutic College, Bergen Heights, N. J.; Eclectic Medical College of Pennsylvania (late issue); Joplin Medical College, Joplin, Mo.; Livingston University, Haddenfield, N. J.; New England University of Arts and Science, Boston, Mass., and Manchester, N. H.; Northwestern Medical College, St. Joseph, Mo.; Penn. Medical University, Philadelphia, Pa.; Philadelphia University of Medical and Surgery, Philadelphia, Pa.; Physio-Eclectic Medical College, Cincinnati, O.; Physio-Medical College, Cincinnati, O. (late issues); St. Louis Eclectic Medical College, St. Louis, Mo.; St. Louis Homeopathic Medical College, St. Louis, Mo.

Several of the colleges credited to Cincinnati we have never heard of. One of them may be a college that one Campbell, a notorious quack, was advertising a few years ago. In his advertisements, we recollect, that he did not require attendance in person at his pretended college, but, on payment of the fees, agreed to superintend studies and give instructions by correspondence. When the student had finished the course of studies, he proposed to conduct the examination by letter. This is a positive fact. We have not heard anything of his school for some time; but it may be that he continues to send out his circulars in a private way.

One of the Physio-Medical Colleges is probably a pretended School of Alva Curtis, now dead, who was a well-known doctor of the Thompsonian creed in Cincinnati for a period of thirty years or more. Notwithstanding that Curtis was a noisy quack, yet he possessed considerable education, and was regarded a good writer. His favorite topic in writing was medicine, yet he wrote on many scientific subjects for both newspapers and scientific journals. He alone composed his school. He was the Faculty, Board of Trustees, etc. But as he is now dead, he is issuing no more diplomas.

The Tomb of John Hunter.—A correspondent of the *Courier Journal*, of St. Louis, recently visited Westminster Abbey, which has the tomb of the greatest surgeon that ever lived. The correspondent says that the tablet, a memorial one, marking the tomb, is of granite, set into and even with

the stone pavement of the north aisle of the nave, inlaid with brass letters and ornamentation. The inscription reads:

Beneath are deposited the remains of John Hunter, Born at Long Calderwood, Lanarkshire, N. B., on the 13th of February, 1728; died in London on the 16th of October, 1793. His remains were removed from the Church of St. Martin's in the Fields to this Abbey, on the 28th of March, 1869. The Royal College of Surgeons have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the Divine Power and Wisdom at work in the Laws of Organic Life, and their grateful veneration for his services to mankind.

The same correspondent describes the Royal College of Surgeons; and for the information of those of our readers who do not happen to be informed in regard to it we will glean some of the facts stated.

The Royal College of Surgeons took its birth about 1470, Edward IV issuing letters patent to the Mystery of Barbers. Henry VIII united the companies of Barbers and Surgeons; and so changes went on until the present organization was patented in 1800. This institution is not a college in the sense in which we use the word, for it does not instruct students—it confers degrees on those who have been elsewhere educated. The institutions that afford instruction are the medical schools, which in London are 13 in number, and are connected invariaby with medical hospitals.

In order to become a member of the Royal College of Surgeons, the pupil is required to pass preliminary and graded examinations, to spend four years in medical study, including bedside instruction and service as a hospital dresser, and to pay fees amounting to $670, of which $550—average—goes to teachers, and $120 to the examiners. To become a Fellow R. C. S. two more years of study are required, and $80 additional fees, with another satisfactory examination. To instance the severity of the examinations, it is stated, that one third or more of the applicants fail to pass, and may be remanded for further study.

Extract from the Manuscript of Dr. Mudd.—Our readers remember Dr. Mudd, who was tried among the conspirators who had aided in the assassination of President Lincoln. The poor doctor had dressed the leg of the wretched Booth, who had shot the President through the head, but, at the time of doing so, he was entirely ignorant of the terrible crime

which Booth had committed but a few hours before, having been told by the assassin that he had injured his leg by having been thrown from his horse. He had no more sympathy for the horrid murder than the purest patriot of the land. When Booth presented himself at his house, badly hurt, and evidently suffering exquisitely, he did just what any other humane physician would have done—dressed his fractured limb. After he had rendered appropriate professional services, as he had no reason to disbelieve the accident to Booth had happened in any other way than he had told him, he let him go. But in a very short time, cavalry men, who had been sent out to scour the country to apprehend the fleeing assassin, presented themselves, and finding a bootleg in the house having on it the name of Booth, he was dragged by a rope fastened to the horn of a saddle to Washington. On foot, for many miles, he was compelled to keep up, over the roughest roads, with the horseman to whose saddle he was tied.

In dressing the leg of Booth, in consequence of not being able to remove the boot, because of the swelling and extreme tenderness, he had cut away a portion of the bootleg, and it was this part of it, tossed aside, that had the assassin's name on it, and led to the arrest of the poor doctor.

So great was the excitement that followed upon the assassination of Lincoln, that not a few vile persons took advantage of it to obtain places and get money by implicating persons entirely innocent of any complicity in it. Under the circumstances, it was not difficult to perpetrate the miserable crime upon Dr. Mudd that was perpetrated. It is greatly to be regretted that the perpetrators can not now be reached and punished as they ought to be. But we must proceed to give the extract from his Mss. we set out to do. It will be remembered that Dr. Mudd died a few weeks ago. He left in manuscript a treatise on epidemic diseases, from which is extracted the following allusions to his sufferings, which is heart-sickening.

"In July, 1865, I was sent a prisoner for life to the military prison at Fort Jefferson, better known as the Dry Tortugas, an island of coral formation in the Gulf of Mexico. Tried by a court-martial, an unlawful tribunal constituted for the purpose of conviction, the same that hanged an innocent woman, I was convicted on the testimony of paid and perjured witnesses of a crime the conception of which I never harbored or entertained. By such a tribunal I was pro-

nounced guilty of complicity in the assassination of President Lincoln, when all the world knew, and the members of that iniquitous and law-defying military commission knew it as well, that my only offense consisted in setting the leg of a man whom I did not at the time know to be a fugitive from justice, and with whose insane act I had not the slightest sympathy. I had done merely an act of charity, from which no true physician would shrink, no matter what the consequences might be. For this I was banished under a life sentence from my wife and children, from home, friends and society, and immured in the gloomiest and most distant prison in the United States. For this I was bound in chains like some savage brute, denied for a long time healthy sustenance, and forced at the point of the bayonet to perform menial and offensive offices, which I will forbear mentioning. The iron entered my soul. Even now, though on restoration to my family and social circle, I am brought back to life and some portion of all that was lost by four years of banishment, the recollections of those years of mental and physical sufferings and the nature of what I endured on that barren coral reef, accursed and plague-smitten, rise before me at times like a horror of great darkness, and will never be effaced as long as memory remains."

Microscopic Examination of the Blood In Yellow Fever.—Dr. H. D. Schmidt, of New Orleans, in his work on Yellow Fever, published in 1881, describes his examination of the blood of persons suffering with Yellow Fever. His microscope was in the ward and placed so as to obtain the best light, with everything required for the examination, such as glass slides, covering glasses, etc., in perfect order and readiness. The blood was obtained by making a small incision into the forearm. The first drop was wiped away, and the blood used that next made its appearance. We copy his account as follows:

"Previous to these examinations of the blood of the living patient, I had observed in some sections of liver and of some other organs, taken from yellow fever cases, extravasations of free hemoglobin from the capillary vessels, and its absorption by the surrounding cells; and, in accordance with this observation, I somewhat expected to meet with free hemoglobin in the blood itself, supposing its escape from the colored blood corpuscles to be caused by the action of the specific poison of the disease upon the latter. And, by

coincidence, I really found in the first specimen which I examined some of this coloring material, which, however—as must be remembered—is a phenomenon not unfrequently met with, even in the examination of normal human blood. In this specimen, moreover, I observed that the greater portion of the colored blood corpuscles presented mulberry and thorn-apple forms, while the rest was rapidly assuming them. In all other respects, with the exception of a few microsytes, the blood appeared perfectly normal. *Not a single bacterium, or spore of a fungus,* was I able to discover though I honestly endeavored to do so. In the next specimen of the blood which I examined, and which was obtained from the same patient and from the same incision, I did not even meet with the free hemoglobin. But, as in the first specimen, in this also, the greater portion of the colored blood corpuscles had already assumed the mulberry or thorn-apple forms when first seen under the microscope, while the rest was undergoing these changes quite rapidly.

"In this manner, I examined the blood of *fifteen* living patients, representing the different stages of the disease; that is, from the second day to one-half hour before death, or to convalescence. Two specimens of blood were examined in each case; in some even as many as three or four, but on different days. In all the cases, with the exception of two, the blood corpuscles presented the mulberry and thorn-apple forms adhering frequently to each other in the form of rolls, forming irregular anastomoses."

At another time we will resume the relation of Dr. Schmidt's microscopical examination of the blood in cases of yellow fever.

The Sequel of a Memorable Operation.—A few days since Prof. W. H. Pancoast, says an exchange, at a clinic in the Philadelphia Hospital, introduced a young man who was once the subject of a remarkable surgical operation, being the separation of an infant from a monstrosity which was virtually another chaotic fœtus developed from his cheek. The person referred to was G. W. Lytle, a young man of twenty-four, residing at Cornellsville, Pa. His only peculiarity was a deep scar on the left cheek. Dr. Pancoast then gave the class an account of the operation, of which there had been but three performed, one each in London, Paris, and Philadelphia, and which consisted in cutting apart two children who were congenitally attached. The operation

was performed twenty-four years ago, by Prof. Joseph Pancoast, when the young man at the clinic was an infant of seven months. The child was born with an appendage growing from the left cheek, which was nothing else than an imperfectly developed infant, with hands, feet and trunk, but no head. The operation was performed at a clinic in Jefferson Medical College, and was witnessed by many of the prominent physicians of the city. The operation was fully described in the *Medical and Surgical Reporter* by Dr. R. J. Dunglison. It was considered bold surgery, but Dr. Pancoast was confident of its propriety, and accordingly performed it, with what success was shown by the presence of the patient himself, nearly a quarter of a century later. An interesting feature of the operation is its having been performed with the ecraseur, then a new instrument, and the first of the kind ever used in America, and brought from Europe by the elder Pancoast. Upon dissection the monstrosity was found provided with heart and gastro-alimentary tract, as well as the organs already referred to. The case attracted considerable attention abroad, and at the request of the eminent English surgeon, Sir James Paget, a cast of the detached mass and a photograph of the child before the operation were furnished to the museum of St. Bartholomew's Hospital.

Sir William Thompson on the Sixth Sense.—It is announced that the distinguished physicist, Sir William Thompson, ascribes to man six senses, namely, those of *force*, heat, sound, light, taste and smell.

We apprehend that this announcement comes rather late in the day, says the *Record*, as American text-books have for some time past taught this doctrine. As an instance we may mention "The Human Body," by Dr. H. Newell Martin, of the Johns Hopkins University, published in 1881. In this work Dr. Martin states, "We commonly distinguish five senses, those of sight, sound, touch, taste and smell," and he then suggests that "temperature" should be added.

The Commencement Exercises of the Cincinnati College of Medicine and Surgery.—The Commencement Exercises of the Cincinnati College of Medicine and Surgery were held on Tuesday evening, February 27th, in the Amphitheatre of the College building. They closed the forty-eighth regular session. The very large room was packed with ladies and gentlemen, the friends of the College and of the graduates.

Many of these presented numerous floral offerings to the young gentlemen of the class. The printed programme for the evening read as follows:

Prayer by Rev. W. F. Mitchell.

Remarks by the Dean, Prof. R. C. S. Reed, M. D.

Conferring of Degrees by the President of the Board of Trustees.

Valedictory address by Prof. Wm. Judkins, M. D.

Benediction.

After the exercises had been opened as arranged, the Dean addressed those present. He briefly reviewed the history of the institution and stated the new features of the College for the next session. Professor Reed paid a high compliment to the graduating class, declaring that it was, beyond doubt, one of the best classes that had ever left the College.

The Degree of M. D. was conferred upon the following gentlemen:

James T. Ball, Indiana.
James Becket, Kentucky.
John Bohlander, Jr., Ohio.
J. L. Benedict, Indiana.
Abraham Elder, Ohio.
Charles M. Faulkner, Ohio.
Levi Gardner, Ohio.
William Haffner, Ohio.
J. F. Henry, Oregon.
Gainor Jennings, Ohio.
F. W. Rose, Ohio.
Carter Simpson, Kentucky.
W. E. Swank, Ohio.
W. F. Taylor, Kentucky.
Wm. Wickham, Pennsylvania.

Prof. William Judkins, M. D., delivered the valedictory, in opening which he recommended the graduating class to the public at large, announcing that he was satisfied that all the members were competent to treat the most vital medical issues submitted to them. Addressing himself to the class, the Professor cautioned the graduates to "hurry slowly," and pointed out to them the importance of the profession into which they had but entered. He endeavored to impress upon their minds that, notwithstanding their long and tedious studies, they had just commenced. The way, he said, was open to greatness and fame, which, however, he said, could only be achieved by hard and incessant work. He urged them to make investigation, because they owed it to themselves, their profession, and humanity. In their intercourse with their patients he enjoined them to keep in mind the advice of Polonius to Laertes, "This, above all, to thy own self be true, and it shall follow as the night the day, thou canst not be false to any man." After giving further counsel and advice, he closed by urging them to weigh carefully each

step, and to consider the intercourse between themselves and patients as the most secret and holy, after which he bid the class farewell on the part of the faculty.

F. W. Rose responded in behalf of the class, thanking the faculty for the efforts they had put forth to give the class a fitting education, and pledging to the College their hearty support in the future.

The exercises were closed by the Rev. Mitchell, who dismissed the audience with the benediction.

The class and faculty adjourned to the residence of Dr. Judkins, Race and Longworth Streets, where a lunch was partaken of.

In justice to the *Cincinnati College of Medicine and Surgery*, it should be mentioned that the small number of the graduating class, of the present session, is mainly due to the delay in announcing the course of Lectures of the session just closed. Our readers have been informed that, at the close of the session of 1881 and 1882, a resignation of the then faculty took place. In forming another faculty composed of gentlemen acceptable to the friends of the school, there was so much delay on the part of Trustees, that, by the time the announcement finally made its appearance, a great many students had come to the conclusion that there would be no session held during the last winter, and had arranged for attendance upon other schools.

Commencement of the Medical College of Ohio.—The Medical College of Ohio held its Annual Commencement, closing its last winter's session, on Thursday evening, March 8, in Music Hall. We were prevented from attending, but we learn by the papers of the following day that there was a large attendance of friends--half filling the hall. The Valedictory Address was delivered by Prof. T. A. Reamy, M.D., whom we know is very competent to make an excellent address. We have been informed, but we think he was misunderstood, that the Professor stated that, so full is the medical profession at the present time in this country, eighty per cent. of those who graduate every year at the various medical schools of the country, drop off into other pursuits, after a vain trial of a longer or shorter time to gain a livelihood by the practice of medicine. We know that not a few do, but we hardly think that the number is eighty per cent. of those who graduate. We can not believe that twenty per cent. of the graduates is sufficient to supply the places of those who

die each year, become incapacitated in consequence of old age and bad health, who abandon the profession from choice because the practice is distasteful, and to supply the large additional number of physicians needed every year to meet the wants of the tremendous annual increase of the population from foreign emigration, besides that from births. We are of the opinion that it approximates nearer the truth in considering that eighty per cent. of those graduating annually continue in the practice of medicine, and that twenty per cent. drop off.

The number receiving diplomas, we understand, were 102, presented by Hon. Flamen Ball, President Board of Trustees. Six prizes, consisting mostly of gold medals, were awarded. One member of the class succeeded in obtaining four of them. Many beautiful bouquets were also distributed by friends.

The Cincinnati Training School for Nurses (male and female) has been organized at the Cincinnati College of Medicine and Surgery. Term begins, with formal opening, March 26, at 3 o'clock P. M., and continues six weeks.

The following curriculum of study will be taught by didactic lectures, and as far as possible by practical illustrations:

1. General hygiene.
2. General principles of nursing.
3. General and special dietetics.
4. Nursing of surgical diseases.
5. " " contagious and infectious diseases.
6. " " children.
7. " " lying-in women.
8. Popular anatomy.
9. " physiology.
10. " chemistry.

} As related to the management and nursing of the sick.

Miami Medical College Commencement.—*The Miami Medical College* held the Commencement Exercises of its session of 1882–83, on Thursday evening, March 1, in Smith & Nixon's Hall. There was a large attendance of ladies and gentlemen. The programme was carried out to the satisfaction of all. The Cincinnati Orchestra discoursed most excellent music, and Levy, the most distinguished cornet player of this country, executed several of the most exquisite solos we ever had the pleasure of hearing.

The Hon. J. D. Cox conferred the degree of M. D. upon

some forty-one gentlemen who had been students during the term of lectures just closed.

Prof. Joseph Eichberg delivered the Valedictory Address, making *Vivisection* the subject of his discourse—treating it in a very able manner.

Obituaries.—The friends of Dr. James T. Whittaker, of this city, Professor in the Medical College of Ohio, were very much shocked by the sudden decease of his wife, on Friday morning, March 2d. The evening previous, we understand, he went out about 8 o'clock, returning a little before 12. On speaking to his wife, who had retired to bed in apparently excellent health, after having given some directions in regard to household matters, and obtaining no reply, he spoke to her again with the same result. Proceeding to investigate, as she had always been a light sleeper, he found her in a state of unconsciousness. He immediately called to his aid a number of his medical colleagues, but all efforts to arouse her were unavailing, and she died about 5 A. M.

Dr. Whittaker will have the sympathy of his many friends in his bereavement.

Died, suddenly, March 10, of disease of the heart, Marion Young Walton, aged 36 years, daughter of the late Wm. Young, of Pittsburg, Pa., and wife of Dr. Geo. E. Walton, of Cincinnati.

Dr. Walton has suffered a great bereavement in the death of his partner. He will have the heartfelt sympathy of his numerous friends both in this city and throughout the country. Our readers will recognize him on being informed that he is the author of a standard, authoritative work describing the various mineral springs, and the therapeutic properties of their waters.

Died, at the residence of her son, Dr. John D. Gaines, of California, Hamilton County, Ohio, at a quarter before 12 o'clock, noon, March 9, Mrs. Margaret Gaines, aged 89 years, 2 months, and 9 days of paralysis. Deceased was the widow of the late Rev. L. G. Gaines, a prominent minister for many years of the Presbyterian Church.

We well remember Mother Gaines and her husband, Parson Gaines. We remember, when a little boy, not more than seven or eight years old, while playing in her yard, of her kindly treating us with a glass of milk and a slice of cake

made by herself. The parson, while preaching every Sunday in a village church in Clermont County, Ohio, taught an Academy kept in a log house on his farm. He was then pretty well to do in the world, although, a number of years before he died, he became very much embarrassed in consequence of losing all his money obtained from the sale of his farm by the failure of a bank. Rustic as the old school-house was, with its long benches made of rough boards polished by long sitting on them, with long round legs, and no backs, and great old writing-desks that ran along the walls, it was for a long time the only school for a wide region of country that prepared young men for college. The old gentleman taught after the old style, that arose from the belief that the best method of developing the mind, so as to receive instruction, was to keep in active operation the rattan—that through the sensory nerves the slothful energies of the intellect could be the most readily reached. Flogging, therefore, began in the morning at the opening of the school, and was sedulously kept up until the close. As Latin and Greek were the main studies, and as the edition of Dr. Anthon's series of classical authors had not yet been issued, and the knotty sentences of Cæsar, Virgil, Horace, Cicero, Xenophon, etc. had to be disentangled by the student himself, it can easily be believed that the parson had constant cause to stimulate the powers of the mind by means of the whip. But a third of a century has elapsed, and more, since the close of the last session held in the old log-house academy, and we do not suppose there is left one log resting upon another. Many, very many young men acquired the principal part of their education in it who afterwards became distinguished physicians and ministers. We have known not a few of the former. Some long ago departed this life, and others of them are still leading useful lives and gathering laurels.

Very many of those who had the fortune to attend upon the instruction of the Rev. L. G. Gaines will undoubtedly learn with surprise that his wife has just only now died. As he has been dead many years, and as those whom he taught are all at least middle-aged, there have been only the few who have known her in her retired home who have not supposed she had long since past away. Mother Gaines was an excellent, Christian woman, beloved by all who knew her. She lived to a good old age.


WELLCOME LIBRARY INSTITU

In Malted Barley we have an unlimited supply of diastatic power."—W. Roberts, M. D., F. R. S., in *London Practitioner.*

Trommer
EXTRACT OF MALT.

OPINIONS OF THE MEDICAL PRESS.

"Using Trommer Extract with excellent results; very serviceable in certain forms of dyspepsia; agrees with the most fastidious stomach."—*Canada Lancet, Toronto.*

"Converts starch into glucose and dextrine rapidly and in large quantity. Seems to be steadily increasing in favor for diseases involving impaired nutrition."—*London Lancet.*

"There are many conditions in infancy, old age and debility, where a physician, once acquainted with the value of this Extract, would be at a loss to replace it."—*Medical and Surgical Reporter, Phila.*

"During convalescence from fevers, in cases of phthisis, in certain forms of dyspepsia, and generally in all cases of malnutrition, we have found it of very great value."—*Ohio Medical Recorder.*

"There are few remedies which, to a greater extent, offer *a priori* grounds for their use. The clinical evidence, too, which has sanctioned the physiological claims of Malt Extract, is abundant."—*Louisville Medical News.*

"Adapted to a wide range of cases requiring supplementary food; acceptable to the stomach; aids digestion; an excellent vehicle for other medicines; and will keep in the hottest climate."—*Medical Journal, Wilmington.*

"The Trommer Company has hitherto taken the lead in the introduction of the Extract of Malt. The uniformity and reliable character of this Extract has induced an enormous demand and sale."—*Obstetric Gazette, Cincinnati.*

"Employed with great advantage in the wasting diseases of children, both as a nutrient and to improve digestion."—*Cincinnati Medical News.*

"One of the best of the various preparations of a similar character. Prof. Redwood finds Trommer's Extract has all the power of acting on amylaceous bodies."—*London Chemist and Druggist.*

"Too well known to need commendation. Malt fills a place in the treatment of disease of the utmost utility."—*Courier of Medicine, St. Louis.*

"Has grown so rapidly in favor with the profession that there are few practitioners in Canada who do not regularly prescribe it."—*Canada Medical Record.*

"The Trommer Company was the first to bring prominently before the American profession the virtues of Malt Extract. As a Malt Extract we have no hesitancy in saying that there is no brand in the market its equal in every respect"—*Medical Advance, Detroit.*

"Eminent practitioners, including most of the leading teachers, speak of it in the highest terms. Independently of the obvious merit of the preparation there is in its favor a mass of clinical evidence."—*London Medical Record.*

"There is no scarcity of good alimentary articles, but there is an objection to most of them that they will not keep: This makes our estimate of Trommer's Extract of Malt higher each season. It will keep in the hottest climate."—*N. C. Medical Journal, Wilmington.*

The Trommer Extract Company is engaged exclusively in the manufacture of Malt Extract, "plain," and in such combinations as have been suggested and approved by some of the most eminent members of the profession in Europe and America. Notwithstanding the large demand, they are enabled, by unremitting personal attention to all the details of the manufacture, to maintain the excellent quality which has established the reputation of their preparations on both sides of the Atlantic.

PARIS, 1867 — 1868 — 1872 — 1873, VIENNA.



Prize Medal.



Silver Medal.



Gold Medal.



Medal of Merit.

BOUDAULT'S PEPSINE,

And Wine, Elixir, Syrup, Pills and Lozenges of Pepsine.

Since 1854, when Pepsine was first introduced by Messrs. CORVISART and BOUDAULT, Boudault's Pepsine has been the only preparation which has at all times given satisfactory results.

The medals obtained by **Boudault's Pepsine** at the difierent exhibitions of 1867, 1868, 1872, and recently at the Vienna Exhibition of 1873, are unquestionable proofs of its **excellence.**

In order to give physicians an opportunity to judge for themselves, all Boudault's Pepsine will hereafter be accompanied by a circular giving plain directions for testing it. These tests will enable any one to satisfy himself of the **superiority of Boudault's Pepsine,** which is really the *cheapest*, since its use will not subject physicians and patients alike to disappointment.

CAUTION.—In order to guard against imitations each bottle will hereafter be sealed by a red metallic capsule, bearing the stamp of our trade mark, and secured by a band having a fac-simile of the medals, and the signature of Hottot, the manufacturer.

Is sold in 1 oz., 8 oz., 16 oz., Bottles.

E. FOUGERA & CO., New York,

GENERAL AGENTS FOR THE U. S.

E. FOUGERA & CO.'S

Medicated Globules.

The form of Globules is by far the most convenient as well as the most elegant form for administering liquid preparations or powders of unpleasant taste or odor. The following varieties are now offered :

Globules of **Ether; Chloroform; Oil of Turpentine; Apiol;**
Phosphorated Oil, containing 1-60th grain of Phosphorus;
Phosphorated Oil, containing 1-30th grain of Phosphorus;
Tar; Venice Turpentine; Copaiba; Copaiba & Tar;
Oleo-Resin of Cubebs; Balsam of Peru;
Oil of Eucalyptus; Cod Liver Oil; Rhubarb;
Bi-carb. of Soda, Sulph. Quinia, &c.

The superiority of these Globules over other forms consists in the ease with which they are taken, and in their ready solubility and hence promptness of action.

They are put up in bottles of 100 each

For descriptive circulars and samples address,

E. FOUGERA & CO.,

30 North William Street, New York.

NESTLE'S MILK FOOD.

Its Preparation and Value for Infants.

Preparation.—For an infant under three months, mix one tablespoonful of the Food with ten of hot or cold water. Hold over the gas, lamp, or stove, with constant stirring, until it has boiled two or three minutes. Cool to about blood heat, and give in feeding bottle. For a child three to ten months old, mix in proportion of eight of water to one of Food. For a pap, in proportion of five of water to one of Food.

Value.—Containing only Milk, Wheaten Bread Crust and Sugar, this Food supplies all the elements necessary for complete alimentation, in the most easily assimilable form; the *Milk* furnishing Casein, Albumen, Hydrates of Carbon and Sugar of Milk, while the *Wheaten Bread Crust* supplies Nitrogen, and is especially rich in *Saline Matter*, particularly in potash salts, mainly in the form of phosphates, and Carbon is obtained from the *Cane Sugar*. It makes pure blood, firm flesh, hard muscle, and tough bone. It is a sure preventive of Summer Complaint, and by its use the bowels can be kept in just the state desired. It is retained on the stomach, often, when everything else is rejected. The simplicity of its preparation and the uniformity obtainable are two points the value of which cannot be overestimated.

Particular Attention.—We do not claim that this Food will agree with *all* children. We do not think that any artificial food will ever be made which will do this, as nature sometimes fails, a mother's milk not agreeing with her own child. We only claim, what has been proved by its use for 15 years past, that it will agree with a *larger proportion* of children than any other artificial food.

A pamphlet, by Prof. H. Lebert, of Berlin, giving fuller particulars of the Food, sent to any address on application to

THOMAS LEEMING & CO., Sole Agents,

18 College Place, New York City.

For a perfectly pure **Condensed Milk,** free from starch of any kind, try Nestle's

---

MURDOCK LIQUID FOOD CO., BOSTON,

THE ONLY MANUFACTURERS OF

RAW FOOD EXTRACTS IN THE WORLD

It can be retained by the Weakest Stomach, when all other Food Extracts, and even Water is rejected.

It is the only Food that will relieve the Consumptive from Hunger.

Nutritious food, if raw, condensed, and free from insoluble matter, will cure chronic diseases, as it will make blood faster than all preparations or food, and new blood will cleanse the system.

MURDOCK'S LIQUID FOOD is made from Beef, Mutton and Fruits; contains corpuscles, is 12½ per cent. soluble albumen, and free from insoluble matter, drugs, mercurials, salts and acids, and can be retained by the stomach when so weak as to refuse meat

Ask your Druggists, or send to us for Essays read before the American Medical Association at Richmond, Va, May 6, 1881, on the value of Raw Food Extracts, by Geo. R. Shepherd, of Hartford, Conn., and other Essays and Testimonials from Medical Journals and physicians that have used Liquid Food in cases of Consumption, Scrofula, Nervous and General Debility, Dyspepsia, Acute and Chronic Constipation, Diphtheria, Intemperance, Cholera Infantum, Infantile Diarrhœa, Post-Partum Hemorrhage, Purpura Hemorrhagica with Waxy Liver, Pelvic Cellulitis, Malarial and other Fevers, Chronic Strumous Arthritis, Sclerosis of the Spinal Cord, Senile Gangrene, Perinephritic Abscess and other diseases of mal-nutrition. No cases of Cholera Infantum have occurred where it has been used daily, and no lives have been lost from Cholera Infantum where it has been prescribed by a physician. Excellent for Eczema, Diabetes, Rheumatism and Neuralgia.

At the request of any physician who has not tried our Extracts, and would like to, by advising us at Boston, we will deliver sample bottles to the express in Boston or Cincinnati. *If any physician has a chronic case that will not yield to his treatment, of any disease, we will furnish, at his request, sufficient Liquid Food to satisfy him that Liquid Food will make blood faster than all preparations or food known, and that new blood will cleanse the system of disease. Our claims are that it is a Raw Extract, condensed many fold, free of insoluble matter, and contains corpuscles. It can be retained when the stomach is so weak that it will refuse water.* We are induced to do this, knowing that our Extracts are saving life, and that an increased use of them which will follow after a trial of them, will be the means of saving more lives daily. (*We ask no testimonials of results obtained.*) Raw Extracts are available where cooked ones are not, or, if available, contain only one-third as much nourishment.

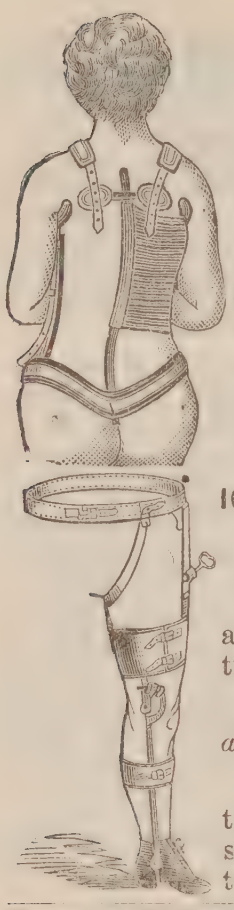
Liquid Food is in general use at all Hospitals, Infant and Insane Asylums, and Washingtonian Homes, U. S. Navy Hospitals, by all physicians who have tried it

For sale by all Druggists in the United States, at ***Wholesale and Retail, by J. D. PARK & SONS,*** or you can order direct, and we will pay express

1 oz., 15 cts.; 6 ozs., 55 cts; 12 ozs., $1.00.

MURDOCK LIQUID FOOD CO., BOSTON.

It will MAKE BLOOD FASTER than ALL PREPARATIONS known.



OLDEST HOUSE IN THE WEST!

(ESTABLISHED 1837.)

MAX WOCHER & SON,

MANUFACTURERS AND IMPORTERS OF

Surgical Instruments

—AND—

ORTHOPÆDICAL APPLIANCES,

105 West Sixth St. (Ohio Medical College Building), **Cincinnati, O.**

—o—

Our stock comprises a full assortment of Surgical Instruments in all its various branches, and to which we add constantly new inventions, approved of by the profession here and abroad.

Apparatuses *for all kinds of human deformities we make with all the latest improvements, as recommended by the best authorities.*

An experience of over 40 years as a practical instrument-maker, together with the reputation enjoyed by us for so many years, will serve as a guarantee that all orders will be promptly and satisfactorily executed.

MENDELSSOHN PIANO CO.

\$850 SQUARE GRAND



PIANO FOR ONLY \$245.

Grand Offer for the next 60 days only.

PIANO STYLE 3½ Magnificent rosewood case, elegantly finished, **8 strings, 7 1-3 Octaves,** full patent cantante agraffes, our new patent overstrung scale, beautiful carved legs and lyre, heavy serpentine and large fancy moulding, full iron frame, French Grand Action, Grand Hammers, in fact, every improvement which can in any way tend to the perfection of the instrument, has been added.

☞ **Our price for this instrument, boxed and delivered on board cars at New York, with fine Piano Cover, Stool and Book, only** **\$245.00**

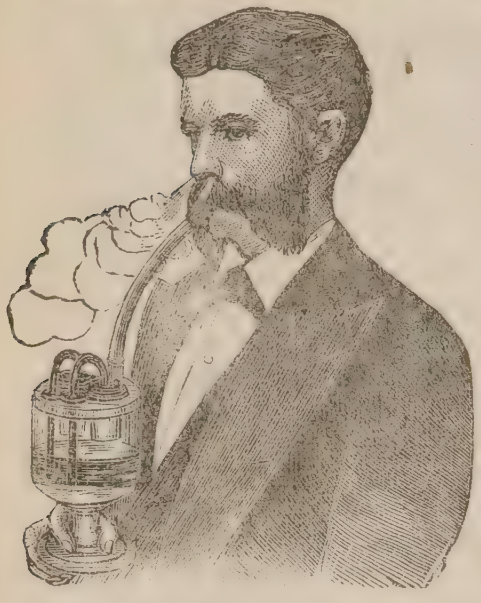
Just reduced from our late **wholesale, factory price, \$295,** for **60 days only.** This is now, by far, the **greatest bargain** ever offered the musical public. Unprecedented success! Tremendous demand for this style! **Send in your order at once.** Do not lose this rare opportunity.

This Piano will be sent on 15 days test trial. Please send reference if you do not send money with order. **Cash sent with order will be refunded and freight charges paid by us both ways if Piano is not just as represented.** Several other special Bargains: **Pianos, \$160 up.** Over 15,000 in use, and **not one dissatisfied purchaser.** Don't fail to write us before buying. Handsome Illustrated Piano Catalogue, mailed free, giving the highest testimonials ever awarded any piano manufacturer. Every Piano fully warranted for 5 years.

SHEET MUSIC at one-third price. Catalogue of 3,000 choice pieces of popular Music sent for 8c stamp.

MENDELSSOHN PIANO CO., P. O. Box 2058, New York City.

Kirkwood's Inhaler.



This is the only complete, reliable and effective inhaler in use, arranged for the direct application of Muriate of Ammonia and other remedial agents in the state of vapor to the diseased parts of the air passages in the treatment of catarrh and diseases of the throat and lungs. **No heat or warm liquids required in its use.**

It is entirely different from the various frail, cheap instruments that have been introduced.

KIRKWOOD'S INHALER is accompanied by testimonials of the highest professional character, together with carefully prepared formulas for use.

Retail Price, complete, $5.00; Small size, $2.50.

A liberal discount allowed to the trade and profession.

For descriptive pamphlets, or other information, address

E. FOUGERA & CO.,

30 North Wiliam Street. New York.

DOCTOR RABUTEAU'S
Dragees, Elixir and Syrup of Iron.

The numerous experiments made by the most distinguished practitioners of our days in France and America have demonstrated that Dr. Rabuteau's preparations of Iron are superior to all other chalybeates in the treatment of *Chlorosis*, *Anæmia*, *Debility*, *Exhaustion*, *Convalescence*, *Weakness of Children*, and all diseases caused by a deterioration of the blood.

Dr. Rabuteau's Dragees (sugar coated pills) do not blacken the teeth, and are assimilated by the most delicate stomachs without causing constipation. Dose, 2 morning and evening, at meal time.

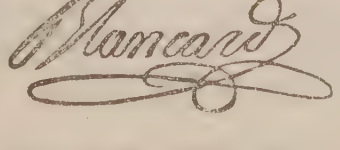
Dr. Rabuteau's Elixir is especially adapted to weak persons, whose digestive functions need strengthening or stimulating.

Dr. Rabuteau's Syrup is especially prepared for children, who take it readily because of its agreeable taste.

Prepared by CLIN & CO., Pharmacists, Paris.

BLANCARD'S PILLS
OF UNCHANGEABLE IODIDE OF IRON.

Blancard's Pills of Iodide of Iron are so scrupulously prepared, and so well made that none other have acquired a so well deserved favor among physicians and pharmaceutists. Each pill, containing one grain of proto-iodide of iron, is covered with finely pulverised iron, and covered with balsam of tolu. Dose, two to six pills a day. The genuine have a *reactive silver seal* attached to the lower part of the cork, and a green label on the wrapper, bearing the fac-simile of the signature of



Pharmacien, No. 40 Rue Bonaparte, Paris.

without which none are genuine.

BEWARE OF IMITATIONS.

PEPSIN!

E. SCHEFFER, LOUISVILLE, KY.,

Manufactures, by his Improved Method,

SACCHARATED PEPSIN,

Which has proven its superiority over other Pepsins by its stability and uniformity. In digestive power it corresponds to the standard adopted by the Committee on the Sixth Revision of the U. S. Pharmacopœia, which is as follows:

One part dissolved in 500 parts of water, acidulated with 7.5 parts of hydrochloric acid, should digest at least 50 parts of hard-boiled Egg Albumen in 5 to 6 hours at 100° to 104° F.

DRY PEPSIN, CONCENTRATED,

Possessing eight times the strength of the above preparation. Particularly recommended to manufacturers.

Premiums were awarded to the above preparations at the

INTERNATIONAL EXPOSITION AT VIENNA, 1873,

AND THE

CENTENNIAL EXPOSITION IN PHILADELPHIA.

A NEW REMEDY!

Con. Tincture Avena Sativa,

(From Common Oats.)

Its Properties are as follows:

NERVE STIMULANT, TONIC, LAXATIVE, ETC.

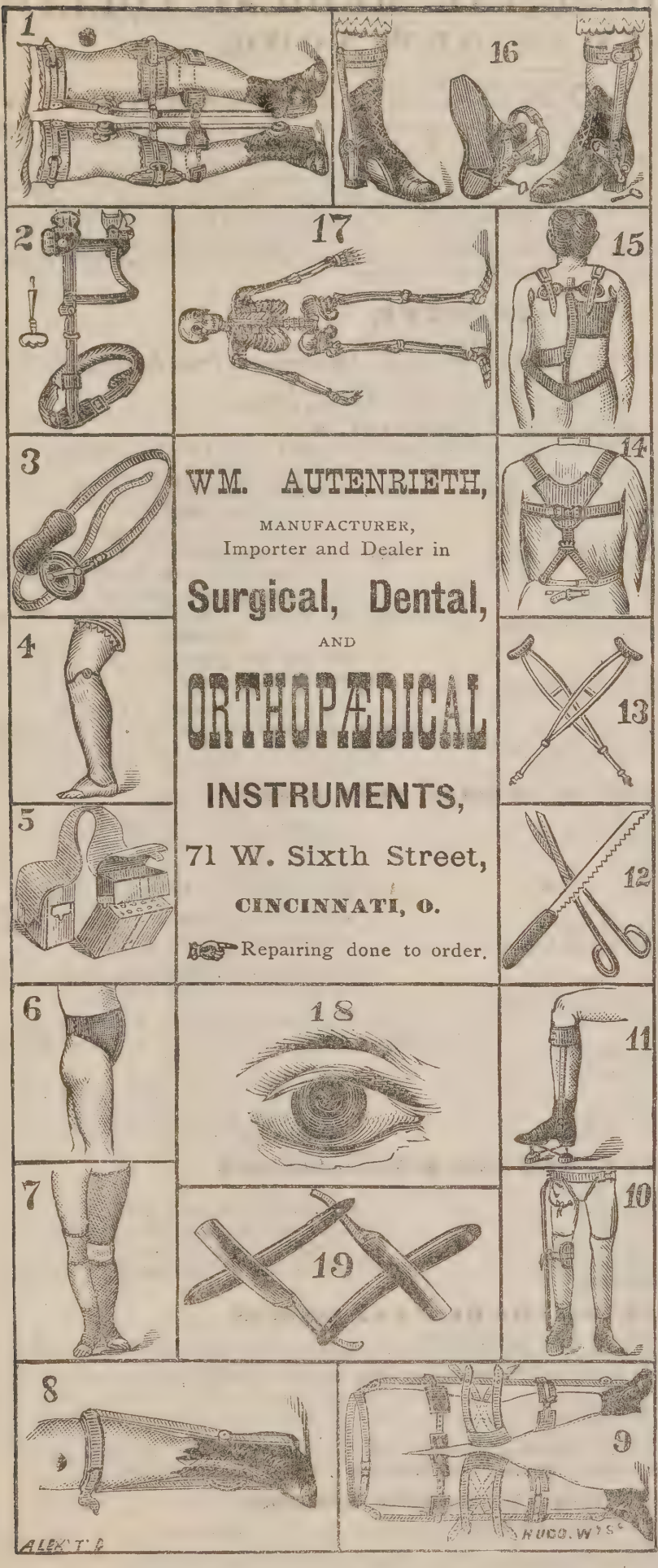
IS EMPLOYED IN THE TREATMENT OF

Paralysis, Epilepsy, St. Vitus Dance, Alcoholism, the Morphia or Opium Habit, Defective or Deficient Menstruation (from Nervous Debility or Anæmic Condition of the System), Coldness of the Extremities, Sleeplessness, Nerve Exhaustion owing to overwork, either Physical or Mental, Cramps, Constipation, and in the Convalescent Stages of all Acute Diseases.

Send for printed matter on CON. TINCT. AVENA in the Morphia or Opium Habit, and certificates from different members of the Medical Profession, citing cases under their charge, treated by it; also REVISED AND ENLARGED MANUAL, to

B. KEITH & CO.,

41 Liberty Street, NEW YORK.



NAMES OF APPARATUS.

No. 1. Bow Leg.
2. Sayre's Hip Joint.
3. Truss.
4. Artificial Leg.
5. Saddle Bag.
6. Abdominal Belt.
7. Elastic Stocking, Knee Cap, etc.
8. Weak Ankle.
9. Knock Knee.
10. Long Hip Joint.
11. Extension Shoe.
12. Surgical Instruments.
13. Crutches.
14. Shoulder Braces.
15. Spinal Apparatus, lateral.
16. Autenrieth's Club Foot Shoes.
17. Skeletons.
18. Artificial Eyes(glass).
19. Autenrieth's Razors.

Send for Circulars for Measurements.

BELLEVUE HOSPITAL MEDICAL COLLEGE

CITY OF NEW YORK.

SESSIONS OF 1882-83.

THE COLLEGIATE YEAR in this Institution embraces the Regular Winter Session, and a Spring Session. THE REGULAR SESSION will begin on Wednesday, September 20, 1882, and end about the middle of March, 1883. During this Session, in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction. Attendance upon two regular courses of lectures is required for graduation. THE SPRING SESSION consists chiefly of recitations from Text-Books. This Session begins about the middle of March and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of Examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

FACULTY.

ISAAC E. TAYLOR, M. D.,
Emeritus Professor of Obstetrics and Diseases of Women and Children, and President of the Faculty.

FORDYCE BARKER, M. D., LL. D.
Professor of Clinical Midwifery and Diseases of Women.

BENJAMIN W. McCREADY, M. D.,
Emeritus Professor of Materia Medica and Therapeutics, and Prof. of Clinical Medicine.

AUSTIN FLINT, M. D., LL. D.,
Professor of the Principles and Practice of Medicine and Clinical Medicine.

W. H. VAN BUREN, M. D., LL. D.,
Professor of Principles and Practice of Surgery, and Clinical Surgery.

LEWIS A. SAYRE, M. D.,
Professor of Orthopedic Surgery and Clinical Surgery.

ALEXANDER B. MOTT, M. D.,
Professor of Clinical and Operative Surgery.

WILLIAM T. LUSK, M. D.,
Professor of Obstetrics and Diseases of Women and Children, and Clinical Midwifery.

A. A. SMITH, M. D.,
Professor of Materia Medica and Therapeutics, and Clinical Medicine.

AUSTIN FLINT, JR., M. D.,
Professor of Physiology and Physiological Anatomy and Secretary of the Faculty.

JOSEPH D. BRYANT, M. D.,
Professor of General, Descriptive and Surgical Anatomy.

R. OGDEN DOREMUS, M. D., LL.D.,
Professor of Chemistry and Toxicology.

EDWARD G. JANEWAY, M. D.,
Professor of Diseases of the Nervous System and Clinical Medicine, and Associate Professor of Principles and Practice of Medicine.

PROFESSORS OF SPECIAL DEPARTMENTS, Etc.

HENRY D. NOYES, M. D.,
Professor of Opthalmology and Otology.

EDWARD L. KEYES, M. D.,
Professor of Cutaneous and Genito-Urinary Diseases.

JOHN P. GRAY, M. D., LL. D.,
Professor of Psychological Medicine and Medical Jurisprudence.

FREDERICK S. DENNIS, M. D., M. R. C. S.,
Professor Adjunct to the Chair of Principles and Practice of Surgery.

WILLIAM H. WELCH, M. D.,
Professor of Pathological Anatomy and General Pathology.

J. LEWIS SMITH, M. D.,
Clinical Professor of Diseases of Children.

JOSEPH W. HOWE, M. D.,
Clinical Professor of Surgery.

LEROY MILTON YALE, M. D.,
Lecturer Adjunct on Orthopedic Surgery.

BEVERLY ROBINSON, M. D.,
Professor of Clinical Medicine.

FRANCKE H. BOSWORTH, M. D.,
Professor of Diseases of the Throat.

CHARLES A. DOREMUS, M. D., PH. D.,
Professor Adjunct to the Chair of Chemistry and Toxicology.

FREDERIC S. DENNIS, M.D., M.R.C.S.,
WILLIAM H. WELCH, M.D.,
Demonstrators of Anatomy.

FACULTY FOR THE SPRING SESSION.

FREDERICK A. CASTLE, M. D.,
Lecturer on Pharmacology.
WILLIAM H. WELCH, M. D.,
Lecturer on Pathological Histology.
CHARLES A. DOREMUS, M. D., PH.D.,
Lecturer on Animal Chemistry.

T. HERRING BURCHARD, M. D.,
Lecturer on Surgical Emergencies.
CHARLES S. BULL, M. D.,
Lecturer on Ophthalmology and Otology.

FEES FOR THE REGULAR SESSION.

Fees for Tickets to all the Lectures, Clinical and Didactic	$140 00
Fees for Students who have attended two full courses at other Medical Colleges, and for Graduates of less than three years' standing of other Medical Colleges	70 00
Matriculation Fee	5 00
Dissection Fee (including material for dissection)	10 00
Graduation Fee	30 00

No Fees for Lectures are required of Graduates of three years' standing, or of third-course Students who have attended their second course at the Bellevue Hospital Medical College.

FEES FOR THE SPRING SESSION.

Matriculation (Ticket valid for the following Winter)	$5 00
Recitations, Clinics and Lectures	40 00
Dissection (Ticket valid for the following Winter)	10 00

☞ For the Annual Circular and Catalogue, giving Regulations for Graduation and other information, address Prof. AUSTIN FLINT, Jr., Secretary, Bellevue Hospital Medical College.

BEEF PEPTONOIDS.

A Concentrated Powdered Extract of Beef, Partially Digested and Combined with an Equal Portion of Gluten.

We have pleasure in presenting, for the consideration of the Medical profession, "BEEF PEPTONOIDS." We consider this product the most valuable that ever emanated from our Laboratory, and we feel confident it will be welcomed by the Profession in all parts of the world.

BEEF PEPTONOIDS contains *only* the *nutritious portions* of the beef. It contains *no water* and *no inert matter* of any kind. We combine the dry Extract of Beef with an equal *portion* of Gluten to prevent a tendency to deliquescence, and in order to present the preparation in a powdered and portable form. It is well known that Gluten is the most nutritious substance found in the Vegetable Kingdom, and in nutritive elements is closely allied to Beef.

Four ounces of BEEF PEPTONOIDS represents as much nutritive and stimulating properties as forty-eight ounces of the best lean Beef.

Four ounces of BEEF PEPTONOIDS contains more nutritive elements than ten pounds of any extract made by Liebig's formula, and from four to six times more Albuminoids and Fibrinoids than any Beef Extract ever offered to the Medical Profession.

Our machinery and process for the production of BEEF PEPTONOIDS are perfectly adapted to the *elimination* of all inert portions of the Beef, and the *retention* of all the nutritive constituents.

BEEF PEPTONOIDS *is much less expensive than any other preparation in the market, as it contains neither water nor inert matter.*

To favor our preparation of BEEF PEPTONOIDS received at the hands of DRS. AGNEW, HAMILTON, BLISS, REYBURN, WOODWARD, BARNES, etc., the corps of eminent Physicians, who employed the preparation with so much advantage in the treatment of the late PRESIDENT GARFIELD, proves conclusively its great value, not only as a food to be taken by the mouth, but also, how important an agent it has been found in feeding by the Rectum.

Please refer to the very able article of DR. D. W. BLISS, in New York *Medical Record*, July 15th, 1882, in which he so frequently refers to BEEF PEPTONOIDS, having been used to so great an advantage, not only in the case of the late PRESIDENT GARFIELD, but many others as well.

We employ a reliable and experienced person to select the Beeves before they are slaughtered, and to superintend the killing and dressing. Great care is exercised in this respect, and none except the most healthy and suitable beeves are employed in making our BEEF PEPTONOIDS.

Every physician will appreciate the importance of this care, for an Extract made from diseased Beef would not only be deleterious, but would, in many cases, produce lasting injury and fatal results.

The use of BEEF PEPTONOIDS is indicated as follows:

Convalescence from all diseases, Fevers, Pneumonia, Weak Digestion, Diarrhœa, Dysentery, Phthisis, Cholera Infantum, Marasmus, Sea Sickness, Excessive use of Alcoholic Stimulants, Per Rectum in all cases where the stomach can not digest the food, and in debility resulting from any cause. Also, a valuable adjunct in voyages and camp life.

We will be pleased to have the Profession everywhere test our assertions regarding this preparation, and for that purpose we will be happy to mail a sample to any regular practitioner desiring it; also, circulars fully explanatory.

For sale, in four ounce handsomely decorated tins, price $1.00. For the convenience of, and economy for, the Medical Profession, we also put up Beef Peptonoids in 16 oz. tins, which will be sent to any address, post paid, on receipt of $2.50.

Thanking the Profession for generous support in the past, we beg to remain,

Very respectfully,

REED & CARNRICK,

182 Fulton Street, New York.

Grimault & Co.'s Pharmaceutical Products.

Prepared with scrupulous care under the immediate supervision of a practical chemist, at their model laboratory at Neuilly, near Paris.

Offices and Salesrooms, No. 8 Rue Vivienne, Paris.

The attention of the medical profession is directed to a few leading products:

CHAPOTEAUT'S PEPSICAL PEPTONES.

These Peptones, prepared with great care, contain only beef digested and rendered assimilable by a *Pepsin*, always titrated and regular, extracted from the stomach of the sheep, digesting 7 to 800 times its weight of fibrine, and which can not be found in commerce. They possess a great alimentary power, and give to the digestive organs an intense nutritive action. These preparations come under three forms:

1st. **CHAPOTEAUT'S PEPSICAL PEPTONE POWDER.** This has only the taste of meat, and offers the advantage of being able to be taken with the first spoon of soup. It is soluble in water, bouillon, or wine. Each teaspoonful represents about 4 grains of Peptone, or 21 to 22 grains of Beef, entirely digested and assimilable

2d. **CHAPOTEAUT'S PEPSICAL PEPTONE CONSERVE.** This article is a liquid, neutral-aromatic, and keeps well. Each teaspoonful represents double its weight of beef, and is taken either pure or in soup, wine, jellies, or syrup, and also in the form of alimentary injections.

3d. **CHAPOTEAUT'S PEPSICAL PEPTONE WINE.** Each small wine-glass contains the Pepsical Peptone of 10 grains of beef. It has a very agreeable taste and constitutes an excellent aliment, which the patient accepts with pleasure. It is taken at the beginning of meals, in doses of one or two small wine glasses.

MIDY'S ESSENCE OF SANDAL.

The Essence of Sandal is used with success in the place of Copaiba and Cubebs. It is inoffensive, even when taken in large doses. Its use does not occasion any indigestion or diarrhœa. The Sandal Midy is chemically pure, and is only sold in the form of Capsules.

IODIZED SYRUP OF HORSE RADISH.

The Syrup of Iodized Syrup of Horse Radish is used in France, on a large scale, as a substitute for Cod Liver Oil. It is prepared from juices of anti-scorbutic plants. Each tablespoonful contains one grain of Iodine so intimately combined as to be insensible to the action of starch.

Dusart's Syrup and Wine of Lacto-Phosphate of Lime.

The properties of which are scientifically founded on physiological experiments, and have received the sanction of several years' successful trial by the French and English medical profession, as producing durable reconstituent effects in all cases of *Cachexia* or *Adynamia*, when nutrition has been impaired by acute or chronic complaints.

As an article of diet it acts as a general excitant of all the nutritive functions, ensures digestion, brings back or increases the appetite, enriches the milk of the mother, and generally improves the vital energies. As a medicament it is chiefly used in convalescence, teething, rickets, and imperfect growth, dyspepsia, various nervous diseases, wounds, fractures, and all complaints of the osseous system.

Dusart's Syrup of Lacto-Phosphate of Lime and Iron is a ferruginous medicament specially invaluable for the above cases, when complicated with anæmia.

Dusart's work on the "Physiological and Therapeutic Action of Phosphate of Lime," will be sent free to any physician on application to Messrs. E. FOUGERA & Co.

GRIMAULT & CO.'S MATICO CAPSULES.

These Capsules are coated with Gluten, and contain the essential Oil of Matico, combined with the Balsam of Copaiba, solidified by Calcined Magnesia. Besides its very special activity, the Essence of Matico has the property of disinfecting the Balsam of Copaiba and of making it endured by the stomach, and do not cause any unpleasant eructations.

LEBAIGUE'S DIALYSED IRON, or pure Peroxide of Iron,

IN SOLUTION, WITHOUT THE AID OF ACIDS OR OTHER SOLVENTS.

It is nearly tasteless; does not blacken the teeth; is very readily absorbed; will not constipate, or cause any disturbance of the digestive apparatus, and is tolerated by persons who could not support any other preparation of Iron. It is offered in the form of a *Solution*, which is generally preferred; or of an *Elixir*, when a slight stimulant is desired

The above, and all other preparations of Messrs. GRIMAULT & CO., and information in regard to the same, may be obtained at all times from

Messrs. E. FOUGERA & CO., Importing Pharmacists, New York.

November, 1882.

BUY THE BEST!

Highly Recommended by the Medical Faculty of both America and Europe, and adopted by the United States Government. More of them Sold than any other Battery in the World.



McINTOSH COMBINED

Galvanic and Faradic

BATTERY.

The First and Only Portable Battery Ever Invented which gives Both the Galvanic and Faradic Current; thus combining two Distinct Batteries in one Case.

No Physician can afford to be without one.

This Celebrated Battery is constructed on an improved plan. The zincs and carbons are fastened to hard rubber plates in sections of six each; this manner of connecting brings the plates nearer together than in any other battery, thus giving less internal resistance. The rubber plate or cover will not warp or break, and is not affected by the fluid.

The cells are composed of one piece of hard rubber and are made in sections of six each with a drip-cup; thus one section can be handled, emptied and cleaned as easily and quickly as one cell.

The fluid cannot spill or run between the cells, and there is no danger of breaking as with glass cells. The drip-cup is to receive the elements when the battery is not in use. The Faradic oil is fastened to the hard rubber plate or cover.

The rubber plate to which the zincs and carbons are attached is securely fastened over the cells when not in use, making it impossible for any of the fluid to be spilled in carrying.

An extra large cell (with a zinc and carbon element) is added to the combined batteries for the purpose of producing the Faradic current. This cell gives as much Power as is ever needed, and avoids exhausting the current from the Galvanic cells.

Our Batteries weigh less, occupy less space, give a current of greater intensity and quantity than any other Battery manufactured. For simplicity of construction they cannot be surpassed, and any person reading our directions will have no trouble in operating them.

This is the only Battery in which the zinc and carbon plates can be kept clean and always in order by simply rinsing them.

All the metal work is finely nickel plated and highly polished, and every part is put together so that it can be easily replaced by the operator.

We have the most complete line of electrodes yet offered to the profession. We also manufacture various styles of Table and Office Batteries, Bath Apparatus, &c., &c. Our manufacturing facilities are the largest of the kind in America, and we employ none but skilled mechanics, and men of scientific experience.

Our Illustrated Catalogue a handsome book giving full description of all our goods, and other valuable information, sent free on application.

McINTOSH GALVANIC & FARADIC BATTERY CO.,

192 & 194 Jackson Street, Chicago, Ill.

Take Only and Insist on The Best of American Manufacture.

PLANTEN'S CAPSULES,*

Known as Reliable nearly Fifty Years.

*See note page 64, Prof. VAN BUREN & KEYES, on Urinary Organs.

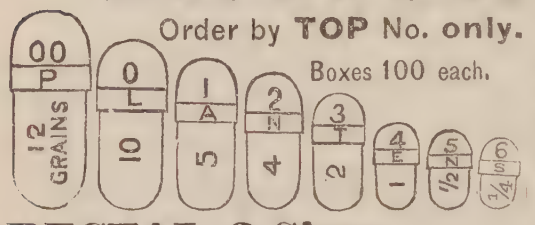
☞ Premium for "General Excellence in Manufacture."

H. PLANTEN & SON,

224 William Street, N. Y.

HARD AND SOFT CAPSULES FILLED OF ALL KINDS.

EMPTY CAPSULES (8 Sizes).



Order by **TOP** No. only.

Boxes 100 each.

Especially adopted and recommended for administering concentrated or nauseous medicines free from taste or smell. Preventing irritation of mouth or throat, and injury to the teeth. ***Box by mail, 50 cents.***

RECTAL, 3 Sizes.
3, 6, and 12 grain.

VAGINAL, 4 Sizes.
1-8, 1-4, 1-16 and 1-32 ounce.

HORSE, 5 Sizes.
1, 2, 3, 4 and 8 drams.
For giving liquids or solids to Horses and Cattle.

DOG WORM.
5 Minims Oil of Male Fern.

N B.—We make all kinds of Capsules to order.
☞ New Articles and capsuling Private Formulas a specialty.

Capsules for Mechanical Purposes.

SAMPLES SENT FREE.

SOLD BY ALL DRUGGISTS.

Specify PLANTEN'S CAPSULES on all Orders.

F. EGNER & CO.,

Successors to H. H. HILL & CO.,

—WHOLESALE DEALERS IN—

Drugs, Liquors, Medicines

—AND—

CHEMICALS,

BARKS, HERBS, ROOTS, ETC.

Manufact'ers of Resinoids, Fluid & Solid Extracts, Syrups, Tinctures, Ointments, Etc.

Particular attention paid to Physicians' orders; all Medicines warranted of the best quality; Shop Furniture, Instruments, and Medical Books furnished at lowest prices.

Southeast Corner Fifth and Race Streets, Cincinnati, Ohio.

FRESH VACCINE VIRUS CONSTANTLY ON HAND.

THE MOST POPULAR
OF ALL
SEWING MACHINES
IS THE
LIGHT-RUNNING
NEW HOME
BEST MADE



SIMPLE
STRONG
SWIFT
SURE
IS
ALWAYS
IN ORDER
AND WILL LAST
HAS NO EQUAL
A LIFETIME
SURPASSES ALL OTHERS
New Home Sewing Machine Co.
30 UNION SQ. NEW YORK
CHICAGO ILL.
ORANGE MASS.
FOR SALE BY



DR. McINTOSH'S

Natural Uterine Supporter.

No instrument has ever been placed before the Medical Profession which has given such universal satisfaction.

EVERY INDICATION OF UTERINE DISPLACEMENTS is met by this combination; Prolapsus, Anteversion, Retroversion and Flexions are overcome by this instrument, when others fail. This is proven by the fact that since its introduction to the Profession it has come into more general use than all other instruments combined.

UNION OF EXTERNAL AND INTERNAL SUPPORT.—The abdomen is held up by the board morocco leather belt with concave front and elastic straps to buckle around the hips. The Uterine Support is a cup and stem made of highly polished hard rubber, very light and durable, shaped to fit the neck of the womb, with openings for the secretions to pass out, as shown by the cuts. Cups are made with extended lips to correct flexions and versions of the womb.

ADAPTABILITY TO VARYING POSITIONS OF THE BODY.—The cup and stem are suspended from the belt by two soft elastic Rubber Tubes, which are fastened to the front of the belt by simple loops, pass down and through the stem of the cup and up to the back of the belt. These soft rubber tubes being elastic adapt themselves to all the varying positions of the body and perform the service of the ligaments of the womb.

SELF ADJUSTING.—One of the many reasons which recommend this Supporter to the Physician is that it is self adjusting. The Physician after applying it need have no fear that he will be called in haste to remove or readjust it, (as is often the case with rings and various pessaries held in position by pressure against the vaginal wall,) as the patient can remove it at will, and replace it without assistance.

It can be worn at all times, will not interfere with nature's necessities, will not corrode, and is lighter than metal. It will answer for all cases of Anteversion, Retroversion, or any Flexion of the womb, and is used by the leading Physicians with unfailing success, even in the most difficult cases.

Our Reduced Prices are, to Physicians, 6.00; to Patients, 10.00.

Instruments sent by mail at our risk, on receipt of price; or we can send by express, C. O. D., and collect return express on the money.

CAUTION.—We call particular attention of Physicians to the fact, that unscrupulous parties are manufacturing a worthless imitation of this Supporter, and some dishonest dealers, for the sake of gain, are trying to sell them, knowing they are deceiving both Physician and patient.

PERSONS RECEIVING A SUPPORTER

will find, if it is genuine, the directions pasted in the cover of the box, with the head-line "Dr. L. D. McINTOSH'S NATURAL UTERINE SUPPORTER"; a cut on the right, showing the Supporter and on the left its application; also the Fac Simile Signature of Dr. L. D. McINTOSH; Each pad of the abdominal belt is stamped in gilt letters, DR. McINTOSH'S NATURAL UTERINE SUPPORTER CO., CHICAGO, ILL. Each box also contains our pamphlet on "DISPLACEMENTS OF THE WOMB," and an extra pair of RUBBER TUBES. IT IS AN ADVANTAGE TO ORDER DIRECT FROM US as we exchange cups at any time without extra charge, and are able to fit any case that requires uterine support. The inventor, DR. L. D. McINTOSH, is connected with the main office, and gives his personal attention to orders.

DR. McINTOSH NATURAL UTERINE SUPPORTER CO.,
192 & 194 Jackson Street, Chicago, Ill.

Our valuable pamphlet "Some Practical Facts about Displacements of the womb," will be sent you free on application.

Physicians' Supplies.

CINCINNATI, *September*, 1882.

DEAR SIR:

During the past year we have devoted our attention entirely to supplying **ALL THE WANTS OF PHYSICIANS.** The result of our experiment has been so satisfactory to us, as to induce us to increase our efforts in this direction.

A very large number of Physicians have endorsed our efforts by their patronage, and have expressed their satisfaction with our goods and our prices.

OUR AIM

Is to supply the Physician with everything necessary to the practice of medicine, and at such prices as give us a fair living profit.

We deal directly with the Physician, and **HAVE NO AGENTS,** on whose shelves our preparations might lie for months before they reach the consumer.

In the manufacture of our preparations we employ only skilled labor and the best materials; our trade for the past year demonstrates that this course pays.

We supply nothing **BUT FIRST-CLASS GOODS,** and refuse, in all cases, to **adulterate** or **deteriorate** our preparations to undersell a competitor, or meet the prices of an unscrupulous manufacturer.

Every bottle bearing our label is

GUARANTEED TO BE OF THE BEST QUALITY.

We carry at all times full lines of

Fluid Extracts,
Solid Extracts,
Resinoids,
Alkaloids,
Medicinal Wines,
Elixirs, and
Syrups.

UNSURPASSED —IN— QUALITY.

Surgical Instruments, of best makers.
Chemical Ware, of our own importation.
Office Outfits, and everything of use to Physicians.

H. M. MERRELL & CO.,

Manufacturing Chemists and Dealers in Physicians' Supplies,

134 W. SIXTH ST., CINCINNATI, O.

Fellows' Hypo-Phos-Phites

(Syr: Hypophos: Comp: Fellows)

Contains THE ESSENTIAL ELEMENTS to the Animal Organization —Potash and Lime;

The OXYDIZING AGENTS—Iron and Manganese;

The TONICS—Quinine and Strychnine;

And the VITALIZING CONSTITUENT—Phosphorus.

Combined in the form of a Syrup, with *slight alkaline reaction.*

IT DIFFERS IN EFFECT FROM ALL OTHERS, being pleasant to taste, acceptable to the stomach, and harmless under prolonged use.

IT HAS SUSTAINED A HIGH REPUTATION in America and England for efficiency in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs, and is employed also in various nervous and debilitating diseases with success.

ITS CURATIVE PROPERTIES are largely attributable to Stimulant, Tonic, and Nutritive qualities, whereby the various organic functions are recruited.

IN CASES where innervating constitutional treatment is applied, and tonic treatment is desirable, this preparation will be found to act with safety and satisfaction.

ITS ACTION IS PROMPT, stimulating the appetite, and the digestion, it promotes assimilation, and enters directly into the circulation with the food products.

THE PRESCRIBED DOSE produces a feeling of buoyancy, removing depression or melancholy, and hence is of great value in the treatment of MENTAL AND NERVOUS AFFECTIONS.

From its exerting a double tonic effect and influencing a healthy flow of the secretions, its use is indicated in a wide range of diseases.

Each Bottle of Fellows' Hypophosphites contains 128 doses.

Prepared by JAMES I. FELLOWS, Chemist,

48 VESEY STREET, NEW YORK.

Circulars and Samples sent to Physicians on application.

☞SPECIAL TO PHYSICIANS.—ONE large bottle containing 15 oz. (which usually sells for $1.50) will be sent upon receipt of Fifty Cents with the application; this will be applied to the prepayment of Expressage, and will afford an opportunity for a thorough test in Chronic cases of Debility and Nervousness. Express Charges prepaid upon all samples. For sale by all druggists.

MALTINE.

MALTINE is a concentrated extract of malted Barley, Wheat and Oats. In its preparation the temperature does not exceed 150 deg. Fahr., thereby retaining all the nutritive and digestive agents unimpaired. Extracts of Malt are made from Barley alone, by the German process, which directs that the mash be heated to 212 deg. Fahr., thereby coagulating the Albuminoids and almost wholly destroying the starch digestive principle, Diastase.

LIST OF MALTINE PREPARATIONS.

MALTINE (Plain).
MALTINE with Hops.
MALTINE with Alteratives.
MALTINE with Beef and Iron.
MALTINE with Cod Liver Oil.
MALTINE with Cod Liver Oil and Pancreatine.
MALTINE with Hypophosphites.
MALTINE with Phosphorus Comp.
MALTINE with Peptones.
MALTINE with Pepsin and Pancreatine.
MALTINE with Phosphates.
MALTINE with Phosphates Iron and Quinia.
MALTINE with Phosphates Iron, Quinia & Strych.
MALTINE Ferrated.
MALTINE WINE.
MALTINE WINE with Pepsin and Pancreatin
MALTO-YERBINE.
MALTO-VIBURNIN.

MEDICAL ENDORSEMENTS.

We append, *by permission*, a few names of the many prominent Members of the Medical Profession who are prescribing our Maltine Preparations:

J. K. BAUDUY, M. D., St. Louis, Mo., Physician to St. Vincent's Insane Asylum, and Prof. Nervous Diseases and Clinical Medicine, Missouri Medical College.

WM. PORTER, A. M., M. D., St. Louis, Mo.

E. S. DUNSTER, M. D., Ann Harbor, Mich., Prof. Obs. and Dis. Women and Children University and in Dartmouth College.

THOMAS H. ANDREWS, M. D., Philadelphia, Pa., Demonstrator of Anatomy, Jefferson Medical College.

B. F. HAMMEL, M. D., Philadelphia, Pa., Supt. Hospital of the University of Penn.

F. R. PALMER, M. D., Louisville, Ky., Prof. of Physiology and Personal Diagnosis, University of Louisville.

HUNTER McGUIRE, M. D., Richmond, Va., Prof. of Surgery, Med. Col. of Virginia.

F. A. MARDEN, M. D., Milwaukee, Wis., Supt. and Physician, Milwaukee County Hospital.

L. P. YANDELL, M. D., Louisville, Ky., Prof. of Clinical Medicine and Diseases of Children, University, Louisville.

JOHN. A. LARRABEE, M. D., Louisville, Ky., Prof. of Materia Medica and Therapeutics, and Clincal Lecturer on Diseases of Children in the Hospital College of Medicine.

R. OGDEN DOREMUS, M. D., L.L.D., New York, Prof. of Chemistry and Toxicology, Bellevue Hospital Medical College; Prof. of Chemistry and Physics, College of the City of New York.

WALTER S. HAINES, M. D., Chicago, Ill., Professor of Chemistry and Toxicology, Rush Medical College, Chicago.

E. F. INGALLS, A. M., M. D., Chicago, Ill., Clinical Professor of Diseases of Chest and Throat, Woman's Medical College.

A. A. MEUNIER, M. D., Montreal, Canada, Prof. Victoria University.

H. F. BIGGAR, M. D., Prof. of Surgical and Medical Diseases of Women, Homœopathic Hospital College, Cleveland, Ohio.

DR. DOBELL, London, England, Consulting Physician to Royal Hospital for Diseases of the Chest.

DR. T. F. GRIMSDALE, Liverpool, England, Consulting Physician, Ladies' Charity and Lying-in-Hospital.

WM. ROBERTS, M.D., F.R.C.P., F.R.S., Manchester, England, Prof. of Clinical Medicine, Owens' College School of Medicine; Physician Manchester Royal Infirmary and Lunatic Hospital.

J. C. THOROWGOOD, M.D., F.R.C.P., London, England, Physician City of London Hospital for Chest Diseases; Physician West London Hospital.

W. C. PLAYFAIR, M.D., F.R.C.P., London, England, Prof. of Obstetric Medicine in King's College, and Physician for the Diseases of Women and Children to King's College Hospital.

W. H. WALSHE, M. D., F.R.C.P., Brompton, England, Consulting Physician Consumption Hospital, Brompton, and to the University College Hospital.

A. WYNN WILLIAMS, M. D., M.R.C.S., London, England, Physician Samaritan Free Hospital for Diseases of Women and Children.

A. C. MACRAE, M.D., Calcutta, Ind., Dep. Insp.-Gen. Hosp. Ind. Service, late Pres. Surg., Calcutta.

EDWARD SHOPPEE, M. D., L. R. C. P., M.R.C.S., London, England.

LENNOX BROWN, F.R.C.S., London, Eng., Senior Surgeon, Central Throat and Ear Hospital.

J. CARRICK MURRAY, M. D., Newcastle-on-Tyne, England, Physician to the N. C. H. for Diseases of Chest.

J. A. GRANT, M. D., F.R.C.S., Ottawa, Canada.

MALTINE is prescribed by the most eminent members of the Medical Profession in the United States, Great Britain, India, China and the English Colonies, and is largely used at the principal Hospitals in preference to any of the Extracts of Malt.

☞ We will forward gratuitously a 1-lb. bottle of any of the above preparations to Physicians, who will pay the express charges. Send for our 28 page Pamphlet on Maltine for further particulars.

THE MALTINE MANUFACTURING CO., John Carnrick, *President.*

(Of Reed & Carnrick, Manufacturing Chemists and Pharmacists.)

Ohio Dental & Surgical Depot,



SPENCER & CROCKER,

117, 119 & 121 West Fifth St.,

(SECOND FLOOR),

CINCINNATI, O.

A complete assortment of Surgical Instruments made for our trade by Tiemann & Co., Shepard & Dudley, Codman & Shurtliff and others, also Trusses, Supporters, Crutches, Batteries and FOREIGN GOODS OF OUR OWN IMPORTATION constantly in stock. Orthopedical Apparatus, Elastic Stockings, etc., made to order.

WHOLESALE & RETAIL.

NEW ILLUSTRATED CATALOGUE, 1883, WILL BE MAILED TO ANY PHYSICIAN ON RECEIPT OF POSTAGE, 6 CENTS.

Special Quotations on large orders and to Colleges and Hospitals.

EUROPE!!!

Cook's Grand Educational Vacation Party leaving New York by the new and magnificent steamer "FURNESSIA" on June 30th, 1883. Outward route via Liverpool, returning via Glasgow. ***Two Divisions,*** one ***$400*** the other ***$550,*** including all necessary expenses. Visits to the ***Holland International Exhibition.*** New programme for sight-seeing in ***London*** with ***special carriage drives*** and a ***Steamboat Excursion on the Thames.*** Carriage drives in all places where at all necessary. Party select and limited in number. Full programme free on application. Other parties start on April 26th, per White Star Steamer "Baltic," on May 30th, per Cunard Steamer, "Scythia," and on June 13th, per Cunard Steamer "Servia."

Address,

THOS. COOK & SON, { 261 Broadway, New York.
197 Washington, St., Boston.

NOTE.—*Thomas Cook & Son carry out all arrangements through their own contracts and employes, and never transfer liability to sub-contractors, or other persons, under any circumstances.*

For Consumption and Wasting Diseases.

—o—

HYDROLEINE

Has been proved of the highest value in CONSUMPTION and all WASTING DISEASES, invariably producing Immediate Increase in FLESH and WEIGHT.

FORMULA OF HYDROLEINE.

Each dose of two teaspoonsful, equal to 120 drops, contains:

Pure Cod Liver Oil 80 m. (drops).	**Soda.....1-3 grains.**
Distilled Water.....35 "	**Boric Acid.....1-4 "**
Soluble Pancreatin, 5 grains.	**Hyocholic Acid.....1-20 "**

Dose.—Two teaspoonsful alone, or mixed with twice the quantity of soft water, to be taken thrice daily with meals.

The principles upon which this discovery is based have been described in a treatise on "*The Digestion and Assimilation of Fats in the Human Body*," by H. C. Bartlett, Ph. D., F. C. S., and the experiments which were made, together with cases illustrating the effect of Hydrated Oil in practice, are concisely stated in a treatise on "*Consumption and Wasting Diseases*," by G. Overend Drewry, M. D.

In these treatises the Chemistry and Physiology of the Digestion of the Fats and Oils is made clear, not only by the description of a large number of experiments scientifically conducted, but by cases in which the deductions are most fully borne out by the results.

☞Copies of these valuable works will be sent free on application.

HYDRATED OIL,

HYDROLEINE,

WATER AND OIL.

HYDROLEINE is readily tolerated by the most delicate stomachs, even when the pure Oil of the most carefully prepared emulsions are rejected. The Oil is so treated with pancreatin, soda, boric and hyocholic acids, that the process of digestion is partially effected before the organs of the patient are called upon to act upon it. Consequently it is readily assimilated. It will nourish and produce increase in weight in those cases where oils or fats, not so treated, are difficult or impossible to digest. In CONSUMPTION and other WASTING DISEASES the most prominent symptom is *emaciation*, of which the first is the starvation of the fatty tissues of the body, including the brain and nerves. This tendency to emaciation and loss of weight is arrested by the regular use of HYDROLEINE, which may be discontinued when the usual average weight has been permanently regained.

The permanence and perfection of the emulsion, and the extreme solubility of the HYDRATED OIL, solely prepared and sold by us under the name of HYDROLEINE, is shown by its retaining its creamlike condition as long as the purest Cod Liver Oil will retain its sweetness. Unlike the preparations mentioned, or simple Cod Liver Oil, it produces no unpleasant eructation or sense of nausea, and should be taken in such very much smaller doses, according to the directions, or will insure its complete assimilation; this, at the same time, renders its use economical in the highest degree.

To brain-workers of all classes, Hydrated Oil is invaluable, supplying, as it does, the true brain food. Economical in use; certain in result. Tonic; digestive and highly nutritive.

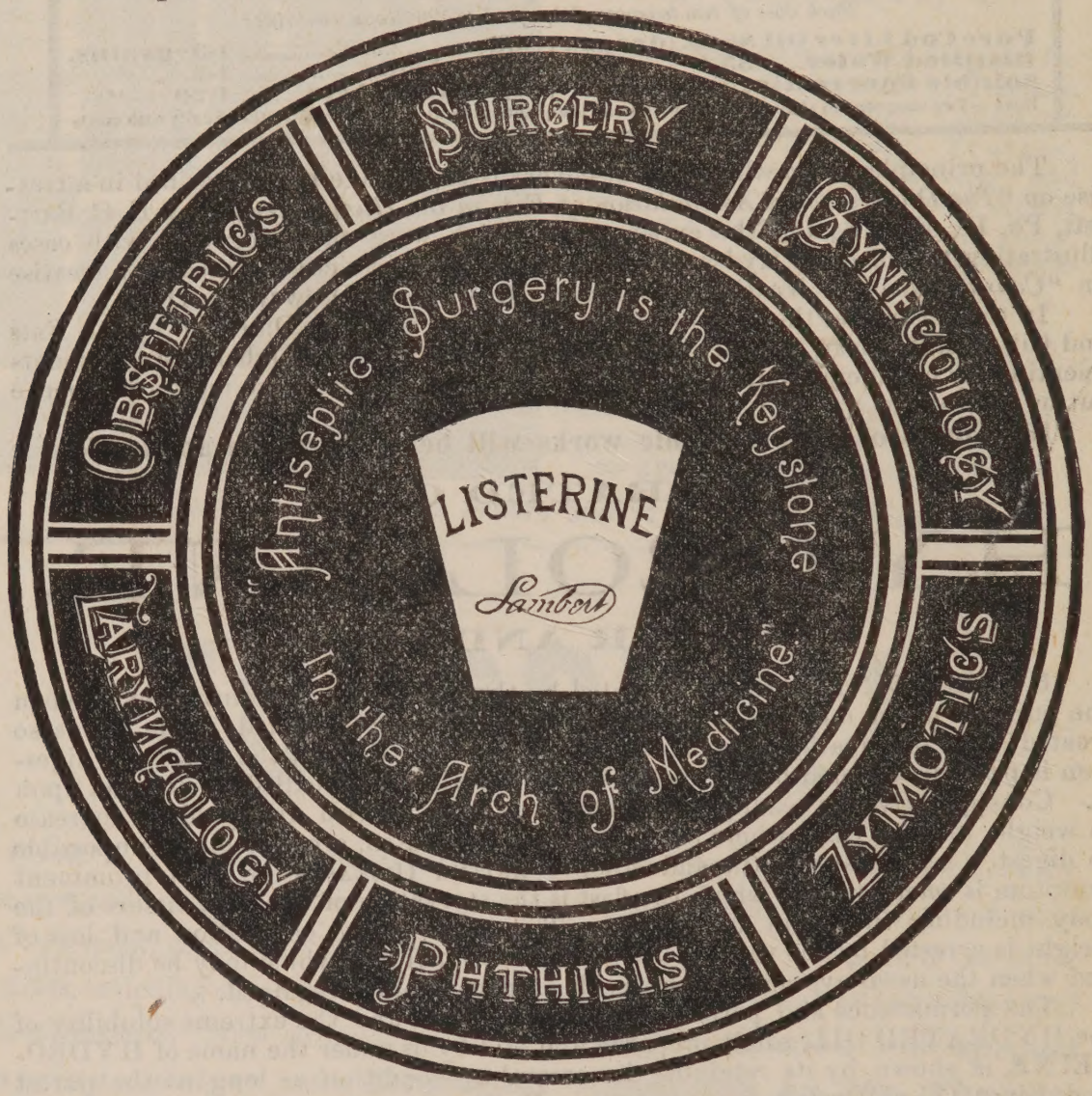
NEW Principle for the Assimilation of FAT

KIDDER & LAIRD, Agent for the United States.

Price at Retail, $1.00 per Bottle. **Depot, 83 John Street, New York.**

LISTERINE is the essential antiseptic constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis in combination. Each fluid drachm also contains two grains of refined and purified Benzo-Boracic Acid.

Ordinary dose, one teaspoonful three or more times a day (as indicated). As a local application to ulcers, wounds, and abscesses, or as a gargle, mouth-wash, inhalant or injection, it can be used ad libitum, diluted as desired, the best clinical testimony having established its safety internally, even in large doses, whilst its capability of dilution to varied strengths for local application, demonstrates its power and scope.



A compilation of Clinical Notes from well-known physicians, and the following special reprints, will be sent, post-paid, upon request:

A LABORATORY STUDY OF LISTERINE.
A tabular exhibit of its action upon fermentative processes.
By Frank M. Deems, M. D., Ph. D., late of University of New York.

OTITIS MEDIA PURULENTA.
By Prof. Dudley S. Reynolds, M. D., Louisville, Ky.

THE BEST METHODS OF TREATING OPERATIVE WOUNDS.
Henry O. Marcy, A.M., M.D., Pres. Amer. Academy of Medicine, Boston.

LAMBERT & CO., Manufacturing Chemists,

307 LOCUST STREET, ST. LOUIS.

NEW REMEDIES.

ALTERATIVES.

PARKE, DAVIS & CO.,

MANUFACTURING CHEMISTS,

DETROIT, MICH.

Believing, as a result of their relations with the medical profession, that an efficient vegetable alterative is a desideratum in medicine, would ask for the following drugs of that class a thorough trial. They are, moreover, convinced that if such trial shall corroborate the testimony already furnished by the experience of many practitioners of acknowledged qualifications to give evidence in such matters, the unanimous verdict will be to regard these drugs as invaluable additions to our materia medica.

CASCARA AMARGA.

HONDURAS BARK.

GENUS PICRAMNIA.

The results of the employment of this drug in the practice of competent judges fully sustain the claims made by Drs. Froehling and Atkinson, of Baltimore, on the strength of whose recommendations we first placed it on our list. It has proven itself a remedy of very great value, especially in the treatment of the syphilides. Its combined tonic properties enhance its value in those depraved conditions of the system with which the more repulsive syphilitic affections are usually associated. We solicit for the valuable drug a more thorough trial.

PARKE, DAVIS & CO.,
Manufacturing Chemists.

DETROIT, MICHIGAN.

MANACA.

(FRANCISCEA UNIFLORA.)

While this drug is also known by the synonym "Mercurio Vegetal," from its recognized alterative properties in its habitat, Brazil, it has attracted especial attention through its virtues as an anti-rheumatic. It is officinal in the Dispensatory of Brazil, and its properties commend it to the profession elsewhere. The testimony to its value in rheumatism is rapidly accumulating in this country.

SEND FOR DESCRIPTIVE CIRCULARS.

By specifying "P. D. & Co." on their prescription for the fluid extracts of these drugs, physicians may rest assured of securing preparations containing the full percentage of active constituents.

Berberis Aquifolium.

Berberis Aquifolium has already become familiar to the profession as one of the most, if not the most, valuable vegetable alterative in the treatment of non-inflammatory scaly cutaneous eruptions. It is also valuable for its influence in catarrhal inflammations of a chronic nature. The testimony covering these claims is very voluminous.

CAROBA LEAVES.

JACARANDA PROCERA.

This drug was originally introduced from Brazil, its habitat, through the profession of Germany, who found it of great value in affections demanding an alterant treatment. In indolent syphilitic ulcers its value has been most marked, and as an adjuvant to mineral alteratives it will demonstrate its fitness for the high position to which the reports of its use have already assigned it. We solicit for the drug that thorough test which its properties unquestionably merit.

PARKE, DAVIS & CO.,
Manufacturing Chemists.

NEW YORK:
60 Maiden Lane & 21 Liberty St.

PARKE, DAVIS & CO.,

MANUFACTURING CHEMISTS.

To the Medical Profession.

LACTOPEPTINE

DEMONSTRATED SUPERIORITY OF LACTOPEPTINE

AS A DIGESTIVE AGENT.

Certificate of Composition and Properties of Lactopeptine, by PROF. ATTFIELD, PH.D., F. R. S., F. I. C., F. C. S., *Prof. of Practical Chemistry to the Pharmaceutical Society of Great Britain.*

LONDON, *May* 3, 1882.

Lactopeptine having been prescribed for some of my friends during the past five years—apparently with very satisfactory results—its formula, which is stated on the bottles, and its general characters, have become well known to me. But, recently, the manufacturer of this article has asked me to witness its preparation on a large scale, to take samples of its ingredients from large bulks and examine them and also mix them myself, and to prepare *Lactopeptine* from ingredients made under my own direction, doing all this with the object of certifying that *Lactopeptine* is what its makers profess it to be, and that its ingredients are in quality the best that can be obtained. This I have done, and I now report that the almost inodorous and tasteless pulverulent substance termed *Lactopeptine* is a mixture of the three chief agents which enable ourselves and all animals to digest food. That is to say, *Lactopeptine* is a skillfully prepared combination of meat-converting, fat-converting and starch-converting materials, acidified with those small proportions of acids that are always present in the healthy stomach; all being disseminated in an appropriate vehicle, namely, powdered sugar of milk. The acids used at the factory—lactic and hydrochloric—are the best to be met with and are perfectly combined to form a permanent preparation; the milk sugar is absolutely pure; the powder known as "diastase" or starch-digesting (bread, potato and pastry-digesting) material, as well as the "pancreatin," or fat-digesting ingredients, are as good as any I can prepare; while the pepsin is much superior to that ordinarily used in medicine. Indeed, as regards this chief ingredient, pepsin, I have only met with one European or American specimen equal to that made and used by the manufacturer of *Lactopeptine*. A perfectly parallel series of experiments showed that any given weight of acidified pepsin, alone, at first acts somewhat more rapidly than *Lactopeptine* containing the same weight of the same pepsin. Sooner or later, however, the action of the *Lactopeptine* overtakes and outstrips that of pepsin alone, due, no doubt, to the meat-digesting as well as the fat-digesting power of the pancreatin contained in the *Lactopeptine*. My conclusion is that *Lactopeptine* is a most valuable digesting agent, and superior to pepsin alone.

JOHN ATTFIELD.

LACTOPEPTINE contains all the agents of digestion that act upon food, from mastication to its conversion into chyle, thus combining all the principles required to promote a healthy digestion.

One of its chief features (and the one which has gained it a preference over all digestive preparations) is, that it precisely represents in composition the natural digestive juices of the stomach, pancreas and salivary glands, and will therefore readily dissolve all foods necessary to the recuperation of the human organism.

FORMULA OF LACTOPEPTINE.

Sugar of Milk.....	40 ounces.	Pancreatine.....	6 ounces.	Lactic Acid.....	5 fl. drachms.
Pepsin.....	8 ounces.	Veg. Ptyalin or Diastase,	4 drachms.	Hydrochloric Acid..	5 fl. drachms

LACTOPEPTINE is sold entirely by Physicians' Prescriptions, and its almost universal adoption by physicians is the strongest guarantee we can give that its therapeutic value has been most thoroughly established.

The undersigned having tested LACTOPEPTINE recommend it to the Profession:

ALFRED L LOOMIS, M. D., Prof. of Pathology and Practice of Med., University of the City of New York.

SAMUEL R. PERCY, M. D., Prof. Materia Medica, New York, Medical College.

F. LE ROY SATTERLEE, M. D., Ph. D., Prof. Chem., Mat. Med. and Therap. in N. Y. College of Dent.; Prof. Chem. and Hyg. in Am. Vet. College, etc.

JAS. AITKIN MEIGS, M. D., Philadelphia, Pa., Prof. of the Institutes of Med. and Med. Juris., Jeff. Med. College; Phy. to Pa. Hospital.

W. W. DAWSON, M. D., Cincinnati, Ohio, Prof. Prin. and Prac. Surg., Med. College of Ohio; Surg. to Good Samaritan Hospital.

ALFRED F. A. KING, M D., Washington, D. C., Prof. of Obstetrics, University of Vermont.

D. W. YANDELL, M. D., Prof. of the Science and Art of Surgery and Clinical Surgery, University of Louisville, Ky.

L. P. YANDELL, M. D., Prof of Clin. Med, Diseases of Children, and Dermatology, University of Louisville, Ky.

ROBT. BATTEY, M. D., Rome, Ga., Emeritus Prof. of Obstetrics, Atlanta Med. College, Ex-President Med. Association of Ga.

CLAUDE H. MASTIN, M.D., LL.D., Mobile, Ala.

PROF. H. C. BARTLETT, Ph.D., F.C.S., London, England.

PROF. JOHN ATTFIELD, Ph.D., F.R.S., F.I.C., F.C.S., LONDON, ENG., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain.

For further particulars concerning *Lactopeptine* the attention of the profession is respectfully directed to our 32-page pamphlet, which will be sent on application.

THE NEW YORK PHARMACAL ASSOCIATION,

P. O. BOX 1574. ***Nos. 10 & 12 College Place, New York.***